## THE APRN'S COMPLETE GUIDE TO

# PRESCRIBING PEDIATRIC DRUG THERAPY 2018

MARI J. WIRFS



## The APRN's Complete Guide to Prescribing Pediatric Drug Therapy

2018

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# The APRN's Complete Guide to Prescribing Pediatric Drug Therapy

2018

Mari J. Wirfs, PhD, MN, RN, ANP-BC, FNP-BC, CNE



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*	single-scored tablet
**	cross-scored tablet
(II), (III), (IV), (V)	Drug Enforcement Agency (DEA) controlled substance schedule
(A), (B), (C), (D), (X)	Food and Drug Administration (FDA) pregnancy category
ABSSSI	acute bacterial skin and skin structure infection
ac	before meal
ACEI	angiotensin converting enzyme inhibitor
ALT	liver enzyme; alanine transaminase (ALT)
AM	ante meridiem, morning
AMD	age-related macular degeneration
Amp	ampule
APAP	acetaminophen
AST	liver enzyme, aspartate transaminase
Аро-В	apolipoprotein B
ARB	angiotensin receptor blocker
ART	antiretroviral treatment
ASE	adverse side effect
AVB	atrioventricular heart block
BCG vaccine	Bacillus Calmette-Guerin vaccine; tuberculosis vaccine
bid	bis in die, twice a day
BP	blood pressure
CAD	coronary artery disease
calib applicator	calibrated applicator
cap	capsule
CAP	community acquired pneumonia

#### xxii • Abbreviations

CCB	calcium channel blocker
CFC	chlorofluorocarbon, inhaler propellant
chew tab	chewable tablet
Child-Pugh A	mild liver disease/dysfunction
Child-Pugh B	moderate liver disease/dysfunction
Child-Pugh C	severe liver disease/dysfunction
CHF	congestive heart failure
CKD	chronic kidney disease
clnsr	cleanser
conc	concentrate, concentration
conj estra	conjugated estrogen
cont-rel	controlled-release, continuous release
COPD	chronic obstructive pulmonary disease
cplt	caplet
Cr	creatinine
CR	controlled-release
CrCl	creatinine clearance measured in mL/min
CRI	chronic renal insufficiency
CRF	chronic renal failure
crm	cream
CVD	cardiovascular disease
СҮР	cytochrome p
DAA	direct-acting antiviral
DDAVP	desmopressin acetate
dL	deciliter
DM	diabetes mellitus
DME	diabetic macular edema
DMARDs	disease modifying antirheumatoid drugs
DR	diabetic retinopathy

deep vein thrombosis
enteric-coated
edetate calcium disodium
ethinyl estradiol
electrocardiogram
exercise-induced asthma
enzyme-inducing antiepileptic drug
exercise-induced bronchospasm
elixir
emollient, emollient cream
extended-release
erythropoiesis stimulating agent
erythrocyte sedimentation rate
end stage renal disease
estradiol
extended-release
film-coated
generic, generic availability
group a beta-hemolytic streptococcus
generalized anxiety disorder
glomerular filtration rate
gastrointestinal
glucagon peptide-1
gram
drop, drops
genitourinary
hydrogen peroxide
highly active antiretroviral treatment
hepatitis A virus

#### xxiv • Abbreviations

HBV	hepatitis C virus			
НСТ	hematocrit			
HCT, HCTZ	hydrochlorothiazide			
HCV	hepatitis C virus			
HDL, HDL-C	high density lipoprotein cholesterol			
HeFH	heterozygous familial hypercholesterolemia			
HFA	hydrofluoroalkane (inhaler propellant phasing in)			
Hgb	hemoglobin			
HgbA1c	hemoglobin A1c, the standard POC diagnostic test for diabetes			
hgc	hard-gel capsule			
HoFH	homozygous familial hypercholesterolemia			
HPV	human papillomavirus			
HR	heart rate in beats per minute			
HRT	hormone replacement therapy			
HS	hour of sleep, bedtime			
IBS-C	irritable bowel syndrome with constipation			
IBS-D	irritable bowel syndrome with diarrhea			
ID	intradermal			
IM	intramuscular			
immed-rel	immediate-release			
inhal	inhalation			
inj	injection			
IU	international unit			
IUD	intrauterine device			
IV	intravenous			
JRA	juvenile rheumatoid arthritis			
K <sup>+</sup>	potassium			
kg	kilogram			
L	liter, 1,000 ml			

LAA	long-acting anticholinergic			
LABA	long-acting beta agonist			
LAR	long-acting release			
LDL, LDL-C	low density lipoprotein cholesterol			
LFTs	liver function tests			
Liq	liquid			
lotn	lotion			
LR	lactated ringers IV solution			
MAOI	monoamine oxidase inhibitor			
mcg	microgram			
mCNY	myopic choroidal neovascularization			
MDD	major depressive disorder			
MDI	metered dose inhaler			
mfr pkg insert	manufacturer package insert			
mg	milligram			
mg/dL	milligrams per deciliter			
mg/kg/day	milligram per kilogram per day			
ml, mL	milliliter			
MRSA	methicillin-resistant staphylococcus aureus			
MS	multiple sclerosis			
MTX	methotrexate			
Na <sup>+</sup>	sodium			
NaCl	sodium chloride			
NaHCO3	sodium bicarbonate			
NAT	nucleic acid testing			
NE	not established			
NGU	non-gonococcal urethritis			
NMDA	n-methyl-d-aspartate receptor antagonist			
NNRTI	non-nucleoside reverse transcriptase inhibitor			
NOH	neurogenic orthostatic hypotension			

#### xxvi • Abbreviations

	T .			
non-HDL-C	non-high density lipoprotein cholesterol			
nPEP	non-occupational postexposure prophylaxis			
NR	not rated, pregnancy category not assigned			
NRTI	nucleoside reverse transcriptase inhibitor			
NS	nasal spray; normal saline			
NSAID	non-steroidal anti-inflammatory drug			
OA	osteoarthritis			
OCD	obsessive-compulsive disorder			
OCP	oral contraceptive pill			
ODT	orally disintegrating tablet			
oint	ointment			
ophth	ophthalmic, pertaining to the eye			
orally-disint	orally disintegrating			
OSAHS	obstructive sleep apnea hypopnea syndrome			
OTC	over-the-counter			
otic	pertaining to the ear			
oz	ounce, 30 ml			
рс	after meals			
PCOS	polycystic ovarian syndrome; Stein-Leventhal disease			
Pediatric	newborn to ≤18 years-of-age			
PEG	polyethylene glycol			
PEP	postexposure prophylaxis			
PDE5	phosphodiesterase type 5 inhibitor			
PJIA	polyarticular juvenile idiopathic arthritis			
PLLR	FDA pregnancy and lactation labeling final rule			
PM	post meridiem, evening			
PMDD	premenstrual dysphoric disorder			
PMHx	past medical history			
PPI	proton pump inhibitor			
PO	per oral, by mouth			

PO4 <sup>3-</sup>	phosphate			
POC	point of care			
Post-op	post-operative			
PR	per rectum			
PRN	as needed			
PTSD	post-traumatic stress disorder			
PUD	peptic ulcer disease			
pwdr	powder			
pwdr w. diluent	powder with diluent			
q	per			
qd	once daily			
qHS	per hour of sleep, bedtime			
qid	quarter in die, four times-a-day			
RA	rheumatoid arthritis			
RAI	reversible anticholinesterase inhibitor			
RBC	red blood cell			
RVO	retinal vein occlusion			
SC	subcutaneous			
SCII	subcutaneous insulin infusion			
sgc	soft-gel capsule			
SGOT	serum glutamic-oxaloacetic transaminase			
SGPT	serum glutamic-pyruvic transaminase			
SL	sublingual, under the tongue			
SNRI	selective serotonin and norepinephrine reuptake inhibitor			
Soln	solution			
SR	sustained-release			
SSRI	selective serotonin reuptake inhibitor			
STD	sexually transmitted disease			
Supp	suppository			

#### xxviii • Abbreviations

susp	suspension			
sust-rel	sustained-release			
SWSD	shift work sleep disorder			
syr	syrup			
T1DM	type 1 diabetes mellitus			
T2DM	type 2 diabetes mellitus			
Т3	liothyronine			
T4	levothyroxine			
tab	tablet			
TCA	tricyclic antidepressant			
TG	triglyceride			
tid	ter in die, three times-a-day			
TMP/SMX	trimethoprim-sulfamethoxazole			
trans-sys	transdermal system			
TRD	treatment-resistant depression			
TSH	thyroid stimulating hormone			
tsp	teaspoon, 4-5 ml			
TSSRI	thienobenzodiazepine-selective serotonin reuptake inhibitor			
ULN	upper limit of normal			
VVC	vulvovaginal candidiasis			
WBC	white blood cell			
w.	with			
XL	extra long-acting			
XOI	xanthine oxidase inhibitor			
XR	extended-release			

#### **PREFACE**

The APRN's Complete Guide to Prescribing Pediatric Drug Therapy is a prescribing reference intended for use by health care providers in all clinical practice settings who are involved in the primary care management of pediatric patients (defined herein as newborn to age 21 years) with acute, episodic, and chronic health problems. If pediatric indications for a drug have not been established or if a drug is not recommended for an age subgroup, this information is noted accordingly. Where a manufacturer's package insert refers to "children," the term refers to patients under 12 years of age. For quick reference weight-based dosing of a drug, the user is directed to the dose by weight table for that drug in the appendices. Comments are interspersed throughout, including such clinically useful information as laboratory values to be monitored, patient teaching points, and safety information.

This reference is divided into two major sections that are organized in a concise and easy-to-read format, Section I presents drug treatment regimens for over 500 clinical diagnoses. Each drug is listed alphabetically by generic name, whether the drug is available over the counter (OTC), DEA schedule (I, II, III, IV, V), generic availability (G), dosing regimens from birth to ≥18 years, available dose forms, whether tablets, caplets, or chew tabs are scored (\*) or cross-scored (\*\*), flavors of chewable, sublingual, buccal, and liquid forms, and information regarding additives (e.g., dye-free, sugar-free, preservative-free or preservative type, and alcohol-free or alcohol content). For a prescription drug that was FDA-approved prior to June 30, 2015, the former 5-letter pregnancy category still applies and are so noted as A, B, C, D, X. See page 459 for descriptions of these FDA pregnancy categories. For drugs FDA-approved after June 30, 2015, the 5-letter categories are no longer used and there is no replacement (categorical nomenclature) at this time. Rather, information regarding special populations, including pregnant and breastfeeding females, is addressed in a structured narrative format. Prescribers should refer to the drug's FDA labeling (https://www.fda.gov/Drugs/default.htm) or the manufacturer's package insert for this information. Prescription drugs submitted for FDA approval after June 30, 2015 use the new format immediately, while labeling for prescription drugs approved on or after June 30, 2015 are phased in gradually. Although drugs approved prior to June 29, 2015 are not subject to the FDA's Pregnancy and Lactation Labeling Final Rule (PLLR), the pregnancy letter category must be removed by June 29, 2018. Labeling for over-the-counter (OTC) medicines will not change, as OTC drugs are not affected by the new FDA pregnancy labeling. For a more detailed explanation of the final rule and new narrative format, visit https://www.drugs.com/ pregnancy-categories.html

Section II presents clinically useful information in a convenient table format, including: the JNC-8 recommendations for hypertension management, the U.S. schedule of controlled substances and the FDA pregnancy categories, measurement conversions, childhood immunization recommendations, brand-name drugs (with contents) for the management of common respiratory symptoms, anti-infectives by classification, pediatric dosing by weight for liquid forms, glucocorticosteroids by potency and route of administration, and contraceptives by route of administration and estrogen and/or progesterone content. An alphabetical cross-reference index of drugs by generic and

brand name, with FDA 5-letter pregnancy category and controlled drug schedule, facilitates quick identification of drugs by alternate names, relative safety during pregnancy, and DEA schedule.

Selected diagnoses (e.g., HIV, ADHD, growth failure, multiple sclerosis, cystic fibrosis, hepatitis, seizure disorders) and selected drugs (e.g., anti-neoplastics, antipsychotics, antiarrhythmics, anti-HIV drugs, contraceptives) are included as pediatric patients treated by specialists are also followed and treated by primary care providers for total (holistic) care of the patient.

Safe, efficacious, prescribing and monitoring of drug therapy regimens for children and adolescents requires adequate knowledge about (a) the pharmacodynamics and pharmacokinetics of drugs, (b) concomitant therapies, and (c) individual characteristics of the patient (e.g., age, weight, current and past medical history, physical examination findings, hepatic and renal function, co-morbidities, and risk factors). Users of this clinical guide are encouraged to utilize the manufacturer's package insert, recommendations and guidance of specialists, standard of practice protocols, and the current research literature for more comprehensive information about specific drugs (e.g., special precautions, drug-drug and drug-food interactions, risk versus benefit, age-related considerations, adverse reactions) and appropriate use with individual patients.

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This publication, which we consider to be a "must have" for students, academicians, and practicing clinicians with prescriptive authority, represents the culmination of Springer Publishing Company's collaborative team effort. Margaret Zuccarini, Publisher, Emerita, Nursing, Joanne Jay, Vice President, Production and Manufacturing, and the Editorial Committee, shared my vision for a handy pocket prescribing reference for new and experienced prescribers in primary care. Joanne Jay designed the contents for ease and efficiency of user navigation. The production team at Exeter Premedia Services, on behalf of Springer Publishing Company, understood the critical nature of exactness in this prescribing resource, and faithfully managed the complex files as content was updated and cross-paginated for the final product. The work of the reviewers from academia and clinical practice was essential to the process and their contributions are greatly appreciated. I am proud of my association with these dedicated professionals and I thank them on behalf of the medical and advanced practice nursing community worldwide, for supporting the end goal of quality health care for all.

#### QUICK CHECK PRESCRIBING REMINDERS . . .

ACE-Is and ARBS are contraindicated in the 2nd and 3rd trimesters of pregnancy. Addition of a daily ACE-I or ARB is strongly recommended for renal protection in patients with hypertension and/or diabetes. The "ACE inhibitor cough," a dry cough, is an adverse side effect produced by an accumulation of bradykinins that occurs in 5-10% of the population and resolves within days of discontinuing the drug.

**Alcohol** is contraindicated with concomitant *narcotic analgesics*, *benzodiazepines*, *SSRIs*, *antihistamines*, *TCAs*, and other sedating agents due to risk of over-sedation.

Alpha-1 blockers have a potential adverse side effect of sudden hypotension, especially with first dose. Alert the patient regarding this "first-dose effect" and recommend the patient sit or lie down to take the first dose. Usually start at lowest dose and titrate upward.

**Aspirin** is contraindicated in children and adolescents with *Varicella* or other viral illness, and 3rd trimester of pregnancy.

Beta-blockers, by all routes of administration, are generally contraindicated in severe COPD, history of or current bronchial asthma, sinus bradycardia, and 2nd or 3rd degree AV block. Use a cardio-specific beta blocker where appropriate in these cases.

Calcium channel blockers may cause the adverse side effect of pedal edema (feet, ankles, lower legs) that resolves with discontinuation of the drug.

Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *codeine*-containing medications to treat pain, cough, and colds in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

**Corticosteroids** increases blood sugar in patients with diabetes and decreases immunity; therefore, consider risk *vs* benefit in susceptible patients, use lowest effective dose, and taper gradually to discontinue.

Erythromycin may increase INR with concomitant *warfarin*, as well as increase serum level of *digoxin*, *benzodiazepines*, and *statins*.

 $\label{progen-progesterone} \textbf{Estrogen-progesterone} \ and \ \textbf{progesterone-only contraceptives} \ are \ contraindicated \ in \ pregnancy \ (pregnancy \ category \ X)$ 

**Finasteride**, a 5-alpha reductase inhibitor, is associated with low but increased risk of high-grade prostate cancer. Pregnant females should not touch broken tablets.

Fluoroquinolones and quinolones are contraindicated <18 years-of-age, pregnancy, and breastfeeding. *Exception*: in the case of anthrax, *ciprofloxacin* is indicated for patients <18 years-of-age and dosed based on mg/kg body weight. Risk of tendonitis or tendon rupture (ex: *ciprofloxacin*, *gemifloxacin*, *levofloxacin*, *moxifloxacin*, *norfloxacin*, *ofloxacin*).

The U.S. Preventive Services Task Force (USPSTF) recommends *against* using hormone replacement therapy (HRT) for primary prevention of chronic conditions among postmenopausal women. The harms associated with combined use of estrogen and a progestin, such as increased risks of invasive breast cancer, venous thromboembolism, and coronary heart disease, far outweigh the benefits.

**Ibuprofen** is contraindicated in children <6 months of age and in the 3rd trimester of pregnancy.

**Metronidazole** and **tinidazole** are contraindicated in the 1st trimester of pregnancy. Alcohol is contraindicated during treatment with oral forms and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

Oral PDE5 inhibitors are contraindicated in patients taking nitrates due to risk of hypotension or syncope (ex: avanafil, sildenafil, tadalafil, vardenafil).

Statins are strongly recommended as adjunctive therapy for patients with diabetes, with  $\underline{or}$  without abnormal lipids.

Sulfonamides are not recommended in pregnancy or lactation. *CrCl* 15-30 *mL/min*: reduce dose by 1/2; *CrCl* <15 *mL/min*: not recommended (ex: *sulfamethoxazole*, *trimethoprim*). Contraindicated with G6PD deficiency. A high fluid intake is indicated during sulfonamide therapy to avoid crystallization in the kidneys.

**Tetracyclines** are contraindicated in children <8 years-of-age, pregnancy, and breastfeeding (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or 2 hours of taking another drug (ex: *doxycycline*, *minocycline*, *tetracycline*).

**Tramadol** is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

The Transmucosal Immediate Release Fentanyl (TIRF) Risk Evaluation and Mitigation Strategy (REMS) program is an FDA-required program designed to ensure informed risk-benefit decisions before initiating treatment, and while patients are

#### Quick Check Prescribing Reminders . . . ● xxxv

treated to ensure appropriate use of TIRF medicines. The purpose of the TIRF REMS Access program is to mitigate the risk of misuse, abuse, addiction, overdose, and serious complications due to medication errors with the use of TIRF medicines. You must enroll in the TIRF REMS Access program to prescribe, dispense, or distribute TIRF medicines. To register, call the TIRF REMS Access program at 1-866-822-1483 or register online at https://www.tirfremsaccess.com/TirfUI/rems/home.action

Live vaccines are contraindicated in patients who are immunosuppressed or receiving immunosuppressive therapy, including immunosuppressive levels of corticosteroid therapy.

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Pediatric Drug Therapy 2018



## **SECTION I**

# PEDIATRIC DRUG THERAPY BY CLINICAL DIAGNOSIS



## **ACETAMINOPHEN OVERDOSE**

### ANTIDOTE/CHELATING AGENT

acetylcysteine (B)(G) Loading dose: 150 mg/kg administered over 15 minutes; Maintenance: 50 mg/kg administered over 4 hours; then 100 mg/kg administered over 16 hours

Acetadote *Vial: soln for IV infusion after dilution:* 200 mg/ml (30 ml; dilute in D<sub>5</sub>W) (preservative-free)

Comment: acetaminophen overdose is a medical emergency due to the risk of irreversible hepatic injury. An IV infusion of acetylcysteine should be started as soon as possible and within 24 hours if the exact time of ingestion is unknown. Use a serum acetaminophen nomogram to determine need for treatment. Extreme caution is needed if used with concomitant hepatotoxic drugs.



### **ACNE ROSACEA**

Comment: All acne rosacea products should be applied sparingly to clean, dry skin as directed. Avoid use of topical corticosteroids.

ivermectin (C) apply bid

Soolantra Crm: 1% (30 gm)

Comment: Soolantra is a macrocyclic lactone. Exactly how it works to treat acne rosacea is unknown.

### TOPICAL ALPHA-1A ADRENOCEPTOR AGONIST

> oxymetazoline hcl (B) <18 years: not recommended; ≥18 years: apply a pea-sized amount once daily in a thin layer covering the entire face (forehead, nose, cheeks, and chin) avoiding the eyes and lips; wash hands immediately</p>

Rhofade Crm 1% (30 g tube)

Comment: Rhofade acts as a vasoconstrictor. Use with caution in patients with cerebral or coronary insufficiency, Raynaud's phenomenon, thromboangiitis obliterans, scleroderma, or Sjögren's syndrome. Rhofade may increase the risk of angle closure glaucoma in patients with narrow-angle glaucoma. Advise patients to seek immediate medical care if signs and symptoms of potentiation of vascular insufficiency or acute angle closure glaucoma develop.

### TOPICAL ALPHA2A-AGONIST

brimonidine (B) <18 years: not recommended; ≥18 years: apply to affected area once daily</p>

Mirvaso Gel: 0.33% (30, 45 gm tube; 30 gm pump)

Comment: For persistent erythema; constricts dilated facial blood vessels to reduce redness.

### TOPICAL ANTIMICROBIALS

➤ azelaic acid (B) apply affected area bid

**Azelex** Crm: 20% (30, 50 gm)

Finacea Gel: 15% (30 gm); Foam: 15% (50 gm)

metronidazole (B) apply affected area bid

MetroCream apply bid

Emol crm: 0.75% (45 gm)

MetroGel apply once daily

Gel: 1% (60 gm tube; 55 gm pump)

MetroLotion apply bid *Lotn:* 0.75% (2 oz)

Klaron Lotn: 10% (2 oz)

➤ sodium sulfacetamide/sulfur (C)

Clenia Emollient Cream apply 1-3 x daily

Wash: sod sulfa 10%/sulfur 5% (10 oz)

Clenia Foaming Wash wash affected area once or twice daily

Wash: sod sulfa 10%/sulfur 5% (6, 12 oz)

Rosula Gel apply 1-3 x daily

Gel: sod sulfa 10%/sulfur 5% (45 ml)

Rosula Lotion apply tid

Lotn: sod sulfa 10%/sulfur 5% (45 ml) (alcohol-free)

Rosula Wash wash bid

Clnsr: sod sulfa 10%/sulfur 5% (335 ml)

### ORAL ANTIMICROBIALS

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, >100 lb: 40-100 mg bid; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa *Tab*: 50, 75, 100, 150 mg ent-coat **Doryx** *Tab*: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

minocycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb q 12 hours x 9 more days; ≥8 years,
</p>

>100 lb: 200 mg on first day; then 100 mg q 12 hours x 9 more days

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

## ACI

## **ACNE VULGARIS**

### TOPICAL ANTIMICROBIALS

Comment: All topical antimicrobials should be applied sparingly to clean, dry skin.

azelaic acid (B) apply to affected area bid

Azelex Crm: 20% (30, 50 gm)

Finacea Gel: 15% (30 gm); Foam: 15% (50 g)

benzoyl peroxide (C)(G) may discolor clothing and linens.

Benzac-W initially apply to affected area once daily; increase to bid-tid as

tolerated

Gel: 2.5, 5, 10% (60 gm)

Benzac-W Wash wash affected area bid

Wash: 5% (4, 8 oz); 10% (8 oz)

Benzagel apply to affected area one or more times/day

Gel: 5, 10% (1.5, 3 oz) (alcohol 14%)

Benzagel Wash wash affected area bid

Gel: 10% (6 oz)

Desguam X5 wash affected area bid

Wash: 5% (5 oz)

Desquam X10 wash affected area bid

Wash: 10% (5 oz)

Triaz apply to affected area daily bid

Lotn: 3, 6, 9% (bottle), 3% (tube); Pads: 3, 6, 9% (jar)

ZoDerm apply once or twice daily

Gel: 4.5, 6.5, 8.5% (125 ml); Crm: 4.5, 6.5, 8.5% (125 ml); Clnsr: 4.5, 6.5, 8.5% (400 ml)

► clindamycin topical (B) <12 years: not recommended; ≥12 years: apply once daily

Cleocin T (G) Pad: 1% (60/pck; alcohol 50%); Lotn: 1% (60 ml); Gel: 1% (30, 60 gm); Soln w. applicator: 1% (30, 60 ml) (alcohol 50%)

Clindagel Gel: 1% (42, 77 gm)

Evoclin Foam: 1% (50, 100 gm) (alcohol)

► *clindamycin/benzoyl peroxide* topical (C) <12 years: not recommended; ≥12 years: apply once daily; *benzoyl peroxide* may discolor clothing and linens

Acanya (G) apply qd-bid

Gel: clin 1.2%/benz 2.5% (50 gm)

BenzaClin (G) apply bid

Gel: clin 1%/benz 5% (25, 50 gm)

Duac Gel: apply daily in the evening

clin 1%/benz 5% (45 gm)

Onexton Gel apply once daily

Gel: clin 1.2%/benz 3.75% (50 gm pump) (alcohol-free)m(preservative-free)

dapsone topical (C) <12 years: not recommended; ≥12 years: apply to affected area
 bid
</p>

**Aczone** *Gel*: 5, 7.5% (30, 60, 90 gm pump)

> erythromycin/benzoyl peroxide (C) initially apply once daily; increase to bid as tolerated; benzoyl peroxide may discolor clothing and linens

Benzamycin Topical Gel Gel: eryth 3%/benz 5% (46.6 gm/jar)

➤ sodium sulfacetamide (C)(G) apply tid

Klaron Lotn: 10% (2 oz)

### ORAL ANTIMICROBIALS

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, >100 lb: 100 mg bid; see page 561 for dose by weight table

Acticlate *Tab*: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 7-10 days;
 ≥45 kg: 250 mg qid, 333 mg tid or 500 mg bid x 7-10 days; then taper to lowest effective dose
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

Perythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7-10 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

minocycline (D)(G) <8 years: not recommended; ≥8 years: initially 50-100 mg once daily; reduce dose after improvement
</p>

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

▶ tetracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 2-4 divided doses; see page 574 for dose by weight table; ≥8 years, >100 lb: initially 1 gm/day in 2-4 divided doses; after improvement, 125-500 mg once daily Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.

### **TOPICAL RETINOIDS**

**Comment**: Wash affected area with a soap-free cleanser; pat dry and wait 20 to 30 minutes; then apply sparingly to affected area; use only once daily in the evening. Avoid applying to eyes, ears, nostrils, and mouth.

adapalene (C) <12 years: not recommended; ≥12 years: apply once daily at HS Differin Crm: 0.1% (45 gm); Gel: 0.1, 0.3% (45 gm) (alcohol-free); Pad: 0.1% 30/pck) (alcohol 30%); Lotn: 0.1% (2, 4 oz)</p>

tazarotene (X) <12 years: not recommended; ≥12 years: apply once daily at HS
 Avage Cream Crm: 0.1% (30 gm)
</p>

**Tazorac Cream** *Crm*: 0.05, 0.1% (15, 30, 60 gm)

Tazorac Gel Gel: 0.05, 0.1% (30, 100 gm)

tretinoin (C) <12 years: not recommended; ≥12 years: apply to affected area once daily at HS
</p>

**Atralin Gel** *Gel*: 0.05% (45 gm)

Avita Crm: 0.025% (20, 45 gm); Gel: 0.025% (20, 45 gm)

Renova Crm: 0.02% (40 gm); 0.05% (40, 60 gm)

Retin-A Cream Crm: 0.025, 0.05, 0.1% (20, 45 gm)

Retin-A Gel Gel: 0.01, 0.025% (15, 45 gm) (alcohol 90%)

Retin-A Liquid Soln: 0.05% (alcohol 55%)

Retin-A Micro Gel Gel: 0.04, 0.08, 0.1% (20, 45 gm)

Tretin-X Cream Crm: 0.075% (35 gm) (paraben-free, alcohol-free, propylene-glycol-free)

### TOPICAL RETINOID/ANTIMICROBIAL COMBINATIONS

Comment: Wash affected area with a soap-free cleanser; pat dry and wait 20-30 minutes; then apply sparingly to affected area; use only once daily in the evening. Avoid eyes, ears, nostrils, and mouth.

adapalene/benzoyl peroxide (C) <18 years: not recommended; ≥18 years: apply a
 thin film to the affected area once daily; benzoyl peroxide may discolor clothing and
 linens
</p>

**Epiduo Gel** *Gel*: *adap* 0.1%/*benz* 2.5% (45 gm)

tretinoin/clindamycin (C) <18 years: not recommended; ≥18 years: apply a thin film
 to the affected area once daily
</p>

Ziana Gel: tret 0.025%/clin 1.2% (30, 60 gm)

### **ORAL RETINOID**

**Comment**: Oral retinoids are indicated only for severe recalcitrant nodular acne unresponsive to conventional therapy including systemic antibiotics.

isotretinoin (X) <12 years: not recommended; ≥12 years: initially 0.5-1 mg/kg/day in 2 divided doses; maintenance 0.5-2 mg/kg/day in 2 divided doses x 4-5 months; repeat only if necessary 2 months following cessation of first treatment course

Accutane Cap: 10, 20, 40 mg (parabens)

Amnesteem Cap: 10, 20, 40 mg (soy)

Comment: isotretinoin is highly teratogenic and, therefore, female patients should be counseled prior to initiation of treatment as follows: Two negative pregnancy tests are required prior to initiation of treatment and monthly thereafter. Not for use in females who are or who may become pregnant or who are breastfeeding. Two effective methods of contraception should be used for 1 month prior to, during, and continuing for 1 month following completion of treatment. Low-dose progestin (mini-pill) may be an inadequate form of contraception. No refills; a new prescription is required every 30 days and prescriptions must be filled within 7 days. Serum lipids should be monitored until response is established (usually initially and again after 4 weeks). Bone growth, serum glucose, ESR, RBCs, WBCs, and liver enzymes should be monitored. Blood should not be donated during, or for 1 month after, completion of treatment. Avoid the sun and artificial UV light. Isotretinoin should be discontinued if any of the following occurs: visual disturbances, tinnitus, hearing impairment, rectal bleeding, pancreatitis, hepatitis, significant decrease in CBC, hyperlipidemia (particularly hypertriglyceridemia).

### **ORAL CONTRACEPTIVES**

see Combined Oral Contraceptives page 476 see Progesterone-Only Contraceptives ("Mini-Pill") page 485



## **ACROMEGALY**

### GROWTH HORMONE RECEPTOR ANTAGONIST

pegvisomant (B) <12 years: not recommended; ≥12 years: Loading dose: 40 mg SC; Maintenance: 10 mg SC daily; titrate by 5 mg (increments or decrements, based on IGF-1 levels) every 4 to 6 weeks; max 30 mg/day</p>

Somavert Inj: 10, 15, 20 mg

Comment: Prior to initiation of *pegvisomant*, patients should have baseline fasting serum glucose, HgbA1c, serum potassium and magnesium, liver function tests (LFTs), EKG, and gall bladder ultrasound.

### Cyclohexapeptide Somatostatin

pasireotide (C) <12 years: not recommended; ≥12 years: administer SC in the thigh or abdomen; initial dose is 0.6 mg or 0.9 mg bid. Titrate dose based on response and tolerability; for patients with moderate hepatic impairment (Child-Pugh B), the recommended initial dosage is 0.3 mg twice daily and max dose 0.6 mg twice daily; avoid use in patients with severe hepatic impairment (Child-Pugh C)</p>

Signifor LAR Amp: 0.3, 0.6, 0.9 mg/ml, single-dose, long-act rel (LAR) susp for inj



## **ACTINIC KERATOSIS**

Comment: *pasireotide* is also indicated for destroying superficial basal cell carcinoma (sBCC) lesions.

Comment: Contraindicated with *aspirin* allergy. As with other NSAIDs, Solaraze Gel should be avoided in late pregnancy (≥30 weeks) because it may cause premature closure of the ductus arteriosus.

Voltaren Gel <12 years: not recommended; ≥12 years: apply qid; avoid non-intact skin

Gel: 1% (100 gm)

- diclofenac sodium 3
   (C; D ≥30 wks)(G) <12 years: not recommended; ≥12 years: apply to lesions bid x 60-90 days
  </p>
- Fluorouracil (X)(G) <12 years: not recommended; ≥12 years: apply to lesion(s) daily-bid until erosion occurs, usually 2-4 weeks</p>

Carac Crm: 0.5% (30 gm)

**Efudex (G)** *Crm*: 5% (25 gm); *Soln*: 2, 5% (10 ml w. dropper)

Fluoroplex Crm: 1% (30 gm); Soln: 1% (30 ml w. dropper)

imiquimod (B)

Aldara (G) <18 years: not recommended;  $\geq$ 18 years: rub into lesions before bedtime and remove with soap and water 8 hours later; treat 2 times per week; max 16 weeks

*Crm*: 5% (single-use pkts/carton)

Zyclara <12 years: not recommended; ≥12 years: rub into lesions before bedtime and remove with soap and water 8 hours later; treat for 2-week cycles separated by a 2-week no-treatment cycle; max 2 packs per application; max one treatment course per area

Crm: 3.75% (single-use pkts; 28/carton) (parabens)

ingenol mebutate (C) <18 years: not recommended; ≥18 years: limit application to one contiguous skin area of about 25 cm² using one unit dose tube; allow treated area to dry for 15 minutes; wash hands immediately after application; may remove with soapy water after 6 hours; Face and Scalp: apply 0.015% gel to lesions daily x 3 days; Trunk and Extremities: apply 0.05% gel to lesions daily x 2 days

Picato Gel: 0.015% (3 single-use tubes), 0.05% (2 single-use tubes)



## ALCOHOL DEPENDENCE/ALCOHOL WITHDRAWAL SYNDROME

### ALCOHOL WITHDRAWAL SYNDROME

Comment: Total length of time of a given detoxification regimen and/or length of time of treatment at any dose reduction level may be extended based on patient-specific factors, including potential or actual seizure, hallucinosis, increased sympathetic nervous system activity (severe anxiety, unwanted elevation in vital signs). If any of these symptoms are anticipated or occur, revert to an earlier step in the dosing regimen to stabilize the patient, extend the detoxification timeline and consider appropriate adjunctive drug treatments (e.g., anticonvulsants, antipsychotic agents, antihypertensive agents, sedative hypnotic agents).

clorazepate (D)(IV)(G) <18 years: not recommended; ≥18 years: De-escalating dosage schedule: Day 1: 30 mg initially, followed by 30-60 mg in divided doses; Day 2: 45-90 mg in divided doses; Day 3: 22.5-45 mg in divided doses; Day 4: 15-30 mg in divided doses; Thereafter, gradually reduce the daily dose to 7.5-15 mg; then discontinue when patient's condition is stable; max dose 90 mg/day</p>

Tranxene Tab: 3.75, 7.5, 15 mg

Tranxene T-Tab Tab: 3.75\*, 7.5\*, 15\*mg

⇒ chlordiazepoxide (D)(IV)(G)

**Librium** <18 years: not recommended;  $\geq$ 18 years: 50-100 mg q 6 hours x 24-72 hours; then q 8 hours x 24-72 hours; then q 12 hours x 24-72 hours; then daily x 24-72 hours

Cap: 5, 10, 25 mg

Librium Injectable <12 years: not recommended; ≥12 years: 50-100 mg IM or IV; then 25-50 mg IM tid-qid prn; max 300 mg/day

Inj: 100 mg

diazepam (D)(IV)(G) <18 years: not recommended; ≥18 years: 2-10 mg q 6 hours x 24-72 hours; then q 8 hours x 24-72 hours; then q 12 hours x 24-72 hours; then daily x 24-72 hours
</p>

Diastat Rectal gel delivery system: 2.5 mg

Diastat AcuDial Rectal gel delivery system: 10, 20 mg

Valium Tab: 2\*, 5\*, 10\*mg

Valium Injectable Vial: 5 mg/ml (10 ml); Amp: 5 mg/ml (2 ml); Prefilled syringe: 5 mg/ml (5 ml)

Valium Intensol Oral Solution Conc oral soln: 5 mg/ml (30 ml w. dropper) (alcohol 19%)

Valium Oral Solution Oral soln: 5 mg/5 ml (500 ml) (wintergreen spice)

• oxazepam (C) <18 years: not recommended; ≥18 years: 500 mg once daily x 1-2 weeks; then 250 mg once daily 10-15 mg tid-qid x 24-72 hours; decrease dose and/or frequency every 24-72 hours; total length of therapy 5-14 days; max 120 mg/day</p>

Cap: 10, 15, 30 mg

### ABSTINENCE THERAPY

### **GABA Taurine Analog**

acamprosate (C)(G) <18 years: not recommended; ≥18 years: 666 mg tid; begin therapy during abstinence; continue during relapse; CrCl 30-50 mL/min: max 333 mg tid; CrCl <30 mL/min: contraindicated
</p>

Campral Tab: 333 mg ext-rel

Comment: Campral does not eliminate or diminish alcohol withdrawal symptoms.

### **AVERSION THERAPY**

disulfiram (X)(G) <18 years: not recommended; ≥18 years: 500 mg once daily x 1-2 weeks; then 250 mg once daily
</p>

Antabuse Tab: 250, 500 mg; Chew tab: 200, 500 mg

Comment: *disulfiram* use requires informed consent. Contraindications: severe cardiac disease, psychosis, concomitant use of *isoniazid*, *phenytoin*, *paraldehyde*, and topical and systemic alcohol-containing products. Approximately 20% remains in the system for 1 week after discontinuation.

### **Nutritional Support**

thiamine (A)(G) <18 years: not recommended; ≥18 years: 500 mg once daily x 1-2
 weeks; then 250 mg once daily injectable 50-100 mg IM/IV daily (or tid if severely
 deficient)
</p>

Vial: 100 mg/1 ml (1 ml)

### ALLERGIC REACTION: GENERAL

### PARENTERAL ANTIHISTAMINE

*diphenhydramine* injectable (B)(G)

**Benadryl Injectable** <12 years: See mfr pkg insert: 1.25 mg/kg up to 25 mg IM x 1 dose; then q 6 hours prn;  $\geq$ 12 years: 25-50 mg IM immediately; then q 6 hours prn

Vial: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multi-dose); Amp: 10 mg/ml (1 ml): Prefilled syringe: 50 mg/ml (1 ml)

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Topical Corticosteroids see page 494

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498



## **AMEBIASIS**

### AMEBIASIS (INTESTINAL)

diiodohydroxyquin (iodoquinol) (C)(G) <6 years: 40 mg/kg/day in 3 divided doses
 pc x 20 days; max 1.95 g; 6-<12 years: 420 mg tid pc x 20 days; ≥12 years: 650 mg
 tid pc x 20 days
</p>

Tab: 210, 650 mg

metronidazole (not for use in 1st; B in 2nd, 3rd)(G) <12 years: 35-50 mg/kg/day in 3 divided doses x 10 days; ≥12 years: 750 mg tid x 5-10 days</p>

Flagyl Tab: 250\*, 500\*mg

Flagyl 375 Cap: 375 mg Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

tinidazole (not for use in 1st; B in 2nd, 3rd) <3 years: not recommended; 3-12 years: 50 mg/kg daily x 3 days; take with food; max 2 gm/day; ≥12 years: 2 gm daily x 3 days; take with food
</p>

Tindamax Tab: 250\*, 500\*mg

paromomycin 25-35 mg/kg/day in 3 divided doses x 5-10 days

Humatin Cap: 250 mg

### AMEBIASIS (EXTRAINTESTINAL)

chloroquine phosphate (C)(G) <12 years: see mfr pkg insert; ≥12 years: 1 gm PO daily x 2 days; then 500 mg daily x 2 to 3 weeks or 200-250 mg IM daily x 10-12 days (when oral therapy is impossible); use with intestinal amebicide Aralen Tab: 500 mg; Amp: 50 mg/ml (5 ml)</p>

## **AMEBIC LIVER ABSCESS**

### ANTI-INFECTIVES

metronidazole (not for use in 1st; B in 2nd, 3rd)(G) <12 years: not recommended;
 ≥12 years: 250 mg tid or 500 mg bid or 750 mg daily x 7 days
</p>

Flagyl Tab: 250\*, 500\*mg Flagyl 375 Cap: 375 mg

Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

in idazole (not for use in 1st; B in 2nd, 3rd) <3 years: not recommended; 3-12 years: 50 mg/kg once daily x 3-5 days; take with food; max 2 gm/day; ≥12 years: 2 gm once daily x 3-5 days; take with food

Tindamax Tab: 250\*, 500\*mg

## AMENORRHEA: SECONDARY

> estrogen/progesterone (X)

Premarin (estrogen) 0.625 mg daily x 25 days; then 5 days off; repeat monthly Provera (progesterone) 5-10 mg last 10 days of cycle; repeat monthly

human chorionic gonadotropin 5,000-10,000 units IM x 1 dose following last dose of menotropins

Pregnyl Vial: 10,000 units (10 ml) w. diluent (10 ml)

medroxyprogesterone (X) Monthly: 5-10 mg last 5-10 days of cycle; begin on the 16th or 21st day of cycle; repeat monthly; One-time only: 10 mg once daily x 10 days Amen Tab: 10 mg

Provera Tab: 2.5, 5, 10 mg

norethindrone (X) 2.5-10 mg daily x 5-10 days

Aygestin Tab: 5 mg

progesterone, micronized (X)(G) 400 mg q HS x 10 days

Prometrium Cap: 100, 200 mg

Comment: Administration of *progesterone* induces optimum secretory transformation of the *estrogen*-primed endometrium. Administration of *progesterone* is contraindicated with breast cancer, undiagnosed vaginal bleeding, genital cancer, severe liver dysfunction <u>or</u> disease, missed abortion, thrombophlebitis, thromboembolic disorders, cerebral apoplexy, and pregnancy.



## **ANAPHYLAXIS**

Pepinephrine (C)(G) <2 years: 0.05-0.1 ml; 2-6 years: 0.1 ml; ≥6-12 years: 0.2 ml; All: q 20-30 minutes as needed up to 3 doses; ≥12 years: 0.3-0.5 mg (0.3-0.5 ml of a 1:1000 soln) SC q 20-30 minutes as needed up to 3 doses

Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498

### ANAPHYLAXIS EMERGENCY TREATMENT KITS

Pepinephrine (C) <15 kg: 0.01 mg/kg SC or IM in thigh; may repeat if needed; 15-30 kg: 0.15 mg; ≥12 years. ≥30 kg: 0.3 ml IM or SC in thigh; may repeat if needed</p>

Adrenaclick Autoinjector: 0.15, 0.3 mg (1 mg/ml; 1, 2/carton) (sulfites) Auvi-Q Autoinjector: 0.15, 0.3 mg (1 mg/ml; 1/pck w. 1 non-active training device) (sulfites)

EpiPen Autoinjector 0.3 mg (epi 1:1000, 0.3 ml (1, 2/carton) (sulfites) EpiPen Jr Autoinjector 0.15 mg (epi 1:2000, 0.3 ml) (1, 2/carton) (sulfites) Twinject Autoinjector: 0.15, 0.3 mg (epi 1:1000) (1, 2/carton) (sulfites)

Pepinephrine/chlorpheniramine (C) infants-2 years: 0.05-0.1 ml SC or IM; 2-<6 years: 0.15 ml SC or IM plus 1 PO tab chlorpheniramine; 6-<12 years: 0.2 ml SC or IM plus 2 chewable chlorpheniramine tabs; ≥12 years: epinephrine 0.3 ml SC or IM plus 4 chewable chlorpheniramine tabs</p>

Ana-Kit: 0.3 ml syringes of *epi* 1:1000 (2/carton) for self-injection <u>plus</u> 4 *chlor* 2 mg chew tabs



## ANEMIA OF CHRONIC KIDNEY DISEASE (CKD) AND CHRONIC RENAL FAILURE (CRF)

## ERYTHROPOIESIS STIMULATING AGENTS (ESAS)

darbepoetin alpha (erythropoiesis stimulating protein) (C) <12 years: not recommended; ≥12 years: administer IV or SC q 1-2 weeks; do not increase more frequently than once per month; Not currently receiving epoetin alpha: initially 0.75 mcg/kg once weekly; adjust based on Hgb levels (target not to exceed 12 gm/dL);
</p>

reduce dose if Hgb increases more than 1 gm/dL in any 2-week period; suspend therapy if polycythemia occurs; *Converting from epoetin alpha and for dose titration*: see mfr pkg insert

Aranesp Vial: 25, 40, 60, 100, 150, 200, 300, 500 mcg/ml (single dose) for IV or SC administration (preservative-free, albumin [human] or polysorbate 80)
Aranesp Singleject, Aranesp Sureclick Singleject Prefilled syringe: 25, 40, 60, 100, 150, 200, 300, 500 mcg (single dose) for IV or SC administration (preservative-free, albumin [human] or polysorbate 80)

peginesatide (C) <12 years: not established; ≥12 years: use lowest effective dose; initiate when Hgb <10 gm/dL; do not increase dose more often than every 4 weeks; if Hgb rises rapidly (i.e., >1 gm/dL in 2 weeks or >2 gm/dL in 4 weeks), reduce dose by 25% or more; if Hgb approaches or exceeds 11 gm/dL, reduce or interrupt dose and then when Hgb decreases, resume dose at approximately 25% below previous dose; if Hgb does not increase by >1 g/dL after 4 weeks, increase dose by 25%; if response inadequate after a 12-week escalation period, use lowest dose that will maintain Hgb sufficient to reduce need for RBC transfusion; discontinue if response does not improve; Not currently on ESA: initially 0.04 mg/kg as a single IV or SC dose once monthly; Converting from epoetin alfa: administer first dose 1 week after last epoetin alfa: Converting from darbepoetin alfa: administer first dose at next scheduled dose of darbepoetin alfa

Omontys Vial, single use: 2, 3, 4, 5, 6 mg (0.5 ml) (preservative-free); Vial, multi-use: 10, 20 mg (2 ml) (preservatives); Prefilled syringe: 2, 3, 4, 5, 6 mg (0.5 ml) (preservative-free)

### **ERYTHROPOIETIN HUMAN, RECOMBINANT**

epoetin alpha (C) <1 month: not recommended; ≥1 month-12 years: individualize; Dialysis: initially 50 units/kg 3 x/week IV or SC; target Hct 30-36%; ≥12 years: individualize; initially 50-100 units/kg 3 x/week; IV (dialysis or non-dialysis) or SC (non-dialysis); usual max 200 units/kg 3 x/week (dialysis) or 150 units/kg 3 x/week (non-dialysis); target Hct 30-36%
</p>

Epogen Vial: 2,000, 3,000, 4,000, 10,000, 40,000 units/ml (1 ml) single use for IV or SC administration (albumin [human]; preservative-free)

**Epogen Multidose** *Vial:* 10,000 units/ml (2 ml); 20,000 units/ml (1 ml) for IV  $\underline{\text{or}}$  SC administration (albumin [human]; benzoyl alcohol)

Procrit Vial: 2,000, 3,000, 4,000, 10,000, 40,000 units/ml (1 ml) single use for IV or SC administration (albumin [human]) (preservative-free)

Procrit Multidose Vial: 10,000 units/ml (2 ml); 20,000 units/ml, (1 ml) for IV or SC administration (albumin [human]; benzoyl alcohol)



### **ANEMIA: FOLIC ACID DEFICIENCY**

► folic acid (A)(OTC) 0.4-1 mg once daily

Comment: *folic acid (vitamin B\_g)* 400 mcg daily is recommended during pregnancy to prevent neural tube defects. Females who have had a baby with a neural tube defect should take 400 mcg every day, even when not planning to become pregnant, and if planning to become pregnant should take 4 mg daily during the month before becoming pregnant until at least the 12th week of pregnancy.



## ANEMIA: IRON DEFICIENCY

Comment: Hemochromatosis and hemosiderosis are contraindications to iron therapy. *Iron* supplements are best absorbed when taken between meals and with *vitamin C*-rich foods. Excessive *iron* may be extremely hazardous to infants and young children. All vitamin and mineral supplements should be kept out of the reach of children.

### **IRON PREPARATIONS**

Ferrous gluconate (A)(G) <12 years: not recommended: ≥12 years: 1 tab once daily Fergon (OTC) Tab: iron 27 mg (240 mg as gluconate)
</p>

► ferrous sulfate (A)(G)

Feosol Tablets (OTC) <6 years: use elixir;  $\geq$ 6-12 years: 1 tab tid pc;  $\geq$ 12 years: 1 tab tid-qid pc and HS

Tab: iron 65 mg (200 mg as sulfate)

Feosol Capsules (OTC) <12 years: not recommended; ≥12 years: 1-2 caps daily Cap: iron 50 mg (169 mg as sulfate) sust-rel

Feosol Elixir (OTC) <1 year: not recommended; >1-11 years: 2.5-5 ml tid

between meals; ≥12 years: 5-10 ml tid between meals

Fer-In-Sol (OTC) <4 years, use drops; ≥4 years: 5 ml once daily

Syr: iron 18 mg (90 mg as sulfate) per 5 ml (480 ml)

Fer-In-Sol Drops (OTC) <4 years: 0.6 ml daily; ≥4 years: use syrup Oral drops: iron 15 mg (75 mg as sulfate) per 5 ml (50 ml)



## **ANEMIA: MEGALOBLASTIC/ANEMIA: PERNICIOUS**

Comment: Signs of *vitamin B12* deficiency include megaloblastic anemia, glossitis, paresthesias, ataxia, spastic motor weakness, and reduced mentation.

vitamin B12 (cyanocobalamin) (A)(G) 500 mcg intranasally once a week; may increase dose if serum B12 levels decline; adjust dose in 500 mcg increments Nascobal Nasal Spray Intranasal gel: 500 mcg/0.1 ml (1.3 ml, 4 doses) (citric acid, benzalkonium chloride)

Comment: Nascobal Nasal Spray is indicated for maintenance of hematologic remission following IM B<sub>12</sub> therapy without nervous system involvement. Must be primed before each use.



## **ANGINA PECTORIS: STABLE**

### CALCIUM ANTAGONISTS

Comment: Calcium antagonists are contraindicated with history of ventricular arrhythmias, sick sinus syndrome, 2nd or 3rd degree heart block, cardiogenic shock, acute myocardial infarction, and pulmonary congestion.

> amlodipine (C)(G) <12 years: not recommended; ≥12 years: 5-10 mg daily Norvasc Tab: 2.5, 5, 10 mg

→ diltiazem (C)(G)

Cardizem <12 years: not recommended; ≥12 years: initially 30 mg qid; may increase gradually every 1-2 days; max 360 mg/day in divided doses

Tab: 30, 60, 90, 120 mg

Cardizem CD <12 years: not recommended; ≥12 years: initially 120-180 mg daily; adjust at 1- to 2-week intervals; max 480 mg/day

Cap: 120, 180, 240, 300, 360 mg ext-rel

Cardizem LA <12 years: not recommended; ≥12 years: initially 180-240 mg daily; titrate at 2 week intervals; max 540 mg/day

Tab: 120, 180, 240, 300, 360, 420 mg ext-rel

Cartia XT <12 years: not recommended; ≥12 years: initially 180 mg or 240 mg once daily; max 540 mg once daily

Cap: 120, 180, 240, 300 mg ext-rel

**Dilacor XR** <12 years: not recommended;  $\geq$ 12 years: initially 180 mg or 240 mg once daily; max 540 mg once daily

Cap: 180, 240 mg ext-rel

Tiazac <12 years: not recommended; ≥12 years: initially 120-180 mg daily; max 540 mg/day

Cap: 120, 180, 240, 300, 360, 420 mg ext-rel

nicardipine (C)(G) <12 years: not recommended; ≥12 years: initially 20 mg tid; adjust q 3 days; max 120 mg/day

Cardene Cap: 20, 30 mg

### ▶ nifedipine (C)(G)

Adalat CC <12 years: not recommended; ≥12 years: initially 30 mg once daily; usual range 30-60 mg tid; max 90 mg/day

Tab: 30, 60, 90 mg ext-rel

Procardia <12 years: not recommended; ≥12 years: initially 10 mg tid; titrate over 7-14 days: max 30 mg/dose and 180 mg/day in divided doses

Cap: 10, 20 mg

Procardia XL <12 years: not recommended; ≥12 years: initially 30-60 mg daily; titrate over 7-14 days; max dose 90 mg/day

Tab: 30, 60, 90 mg ext-rel

### ▶ verapamil (C)(G)

Calan <12 years: not recommended; ≥12 years: 80-120 mg tid; increase daily or weekly if needed

*Tab*: 40, 80\*, 120\*mg

Calan SR <12 years: not recommended; ≥12 years: initially 120 mg once daily; increase weekly if needed

Tab: 120, 180, 240 mg

Covera HS <12 years: not recommended;  $\geq$ 12 years: initially 180 mg q HS; titrate in steps to 240 mg; then to 360 mg; then to 480 mg if needed

*Tab*: 180, 240 mg ext-rel

**Isoptin SR** <12 years: not recommended;  $\geq$ 12 years: initially 120-180 mg in the AM; may increase to 240 mg in the AM; then 180 mg q 12 hours or 240 mg in the AM and 120 mg in the PM; then 240 mg q 12 hours

Tab: 120, 180\*, 240\*mg sust-rel

### **BETA-BLOCKERS**

Comment: Beta-blockers are contraindicated with history of sick sinus syndrome (SSS), 2nd or 3rd degree heart block, cardiogenic shock, pulmonary congestion, asthma, moderate to severe COPD with FEV1 <50% predicted, patients with chronic bronchodilator treatment.

atenolol (D)(G) <12 years: not recommended; ≥12 years: initially 25-50 mg daily; increase weekly if needed; max 200 mg daily
</p>

Tenormin Tab: 25, 50, 100 mg

> metoprolol succinate (C)(G) <12 years: not recommended; ≥12 years: initially 12.5-25 mg in a single dose daily; increase weekly if needed; reduce if symptomatic bradycardia occurs; max 400 mg/day

**Toprol-XL** *Tab*: 25\*, 50\*, 100\*, 200\*mg ext-rel

metoprolol tartrate (C)(G) <12 years: not recommended; ≥12 years: initially 25-50 mg bid; increase weekly if needed; max 400 mg/day</p>

**Lopressor** *Tab*: 25, 37.5, 50, 75, 100 mg

p nadolol (C)(G) <12 years: not recommended; ≥12 years: initially 40 mg daily; increase q 3-7 days; max 240 mg/day</p>

Corgard Tab: 20\*, 40\*, 80\*, 120\*, 160\*mg

**▶** propranolol (C)(G)

Inderal <12 years: not recommended; ≥12 years: initially 10 mg bid; usual range 160-320 mg/day in divided doses

Tab: 10\*, 20\*, 40\*, 60\*, 80\*mg

Inderal LA <12 years: not recommended; ≥12 years: initially 80 mg daily in a single dose; increase q 3-7 days; usual range 120-160 mg/day; max 320 mg/day in a single dose

Cap: 60, 80, 120, 160 mg sust-rel

InnoPran XL <12 years: not recommended; ≥12 years: initially 80 mg q HS; max 120 mg/day

Cap: 80, 120 mg ext-rel

### **NITRATES**

Comment: Use a daily nitrate dosing schedule that provides a dose-free period of 14 hours or more to prevent tolerance. *Aspirin* and *acetaminophen* may relieve nitrate-induced headache. *Isosorbide* is not recommended for use in MI and/or CHF. Nitrate use is a contraindication for using phosphodiesterase type 5 inhibitors: *sildenafil* (Viagra), *tadalafil* (Cialis), *vardenafil* (Levitra).

isosorbide dinitrate (C)

Dilatrate-SR 40 <12 years: not recommended;  $\geq$ 12 years: mg once daily; max 160 mg/day

Cap: 40 mg sust-rel

**Isordil Titradose** initially <12 years: not recommended; ≥12 years: 5-20 mg q 6 hours; maintenance 10-40 mg q 6 hours

Tab: 5, 10, 20, 30, 40 mg

isosorbide mononitrate (C)

 $\label{eq:mdur} Imdur < 12\ years:\ not\ recommended; \ge 12\ years:\ initially\ 30-60\ mg\ q\ AM;\ may\ increase\ to\ 120\ mg\ daily;\ max\ 240\ mg/day$ 

Tab: 30\*, 60\*, 120 mg ext-rel

Ismo <12 years: not recommended; ≥12 years: 20 mg upon awakening; then 20 mg 7 hours later

*Tab*: 20\*mg

nitroglycerin (C)(G)

 $Nitro-Bid Ointment < 12 ext{ years: not recommended; } \ge 12 ext{ years: initially } 1/2 ext{ inch } q ext{ 8 hours; titrate in } 1/2 ext{ inch increments}$ 

Oint: 2% (20, 60 gm)

Nitrodisc <12 years: not recommended; ≥12 years: initially one 0.2-0.4 mg/hour patch for 12-14 hours/day

Transdermal disc: 0.2, 0.3, 0.4 mg/hour (30, 100/carton)

Nitrolingual Pump Spray <12 years: not recommended; ≥12 years: 1-2 sprays on or under tongue; max 3 sprays/15 minutes

Spray: 0.4 mg/dose (14.5 g, 200 doses)

Nitromist <12 years: not recommended; ≥12 years: 1-2 sprays at onset of attack, on or under the tongue while sitting; may repeat q 5 minutes as needed; max 3 sprays/15 minutes; may use prophylactically 5-10 minutes prior to exertion; do not inhale spray; do not rinse mouth for 5-10 minutes after use

Lingual aerosol spray: 0.4 mg/actuation (230 metered sprays)

Nitrostat <12 years: not recommended; ≥12 years: 1 tab SL; may repeat q 5 minutes x 3

SL tab: 0.3 (1/100 gr), 0.4 (1/150 gr), 0.6 (1/4 gr) mg

Transderm-Nitro <12 years: not recommended; ≥12 years: initially one 0.2 mg/hour or 0.4 mg/hour patch for 12-14 hours/day

Transdermal patch: 0.1, 0.2, 0.4, 0.6, 0.8 mg/hour

### NON-NITRATE PERIPHERAL VASODILATOR

hydralazine (C)(G) <12 years: not recommended; ≥12 years: initially 10 mg qid x 2-4 days; then increase to 25 mg qid for remainder of first week; then increase to 50 mg qid; max 300 mg/day Tab: 10, 25, 50, 100 mg

### NITRATE/PERIPHERAL VASODILATOR COMBINATION

isosorbide/hydralazine HCl (C) <12 years: not established; ≥12 years: initially 1 tab tid: max 2 tabs tid

Bodily Tab: isosorb 20 mg/hydral 37.5 mg

### **NON-NITRATE ANTIANGINAL**

ranolazine (C) <12 years: not recommended; ≥12 years: initially 500 mg bid; may increase to max 1 gm bid
</p>

Ranexa Tab: 500, 1000 mg ext-rel

Comment: Ranexa is indicated for the treatment of chronic angina that is inadequately controlled with other antianginals. Use with amlodipine, betablocker, or nitrate.



## ANOREXIA/CACHEXIA

### APPETITE STIMULANTS

- cyproheptadine (B)(G) <2 years: not recommended; ≥2-6 years: 2 mg bid-tid prn; max 12 mg/day; 7-14 years: 4 mg bid-tid prn; max 16 mg/day; >14 years: initially 4 mg tid prn; then adjust as needed; usual range 12-16 mg/day; max 32 mg/day

   Periactin Tab: cypro 4\*mg; Syr: cypro 2 mg/5 ml
- dronabinol (cannabinoid) (B)(III) <12 years: not recommended; ≥12 years: initially
   2.5 mg bid before lunch and dinner; may reduce to 2.5 mg q HS or increase to 2.5
   mg before lunch and 5 mg before dinner; max 20 mg/day in divided doses
  </p>

Marinol Cap: 2.5, 5, 10 mg (sesame oil)

ightharpoonup megestrol (progestin) (X)(G) <12 years: not recommended;  $\geq$ 12 years: 40 mg qid

Megace *Tab*: 20\*, 40\*mg

Megace ES Oral susp (concentrate): 125 mg/ml; 625 mg/5 ml (5 oz) (lemon-lime)

Megace Oral Suspension Oral susp: 40 mg/ml (8 oz); 820 mg/20 ml) (lemon-lime)

Megestrol Acetate Oral Suspension (G) 125 mg/ml

Comment: *megestrol* is indicated for the treatment of anorexia, cachexia, or an unexplained, significant weight loss in patients with a diagnosis of AIDS.



## **ANTHRAX (BACILLUS ANTHRACIS)**

## POSTEXPOSURE PROPHYLAXIS OF INHALATIONAL ANTHRAX AND TREATMENT OF INHALED AND CUTANEOUS ANTHRAX INFECTION

### Immune Globulin

bacillus anthracis immune globulin intravenous (human) (NE) <16 years: not established; 5-<10 kg: 1 vial; 10-<18 kg: 2 vials; 18-<25 kg: 3 vials; 25-<35 kg: 4 vials; 35-<50 kg: 5 vials; 50-<60 kg: 6 vials; ≥60 kg: 7 vials; ≥16 years: administer via IV infusion at a maximum rate of 2 ml/min; dose is weight-based as follows, but may be doubled in severe cases if weight >5 kg

Anthrasil Vial: (60 units) sterile solution of purified human immune globulin G (IgG) containing polyclonal antibodies that target the anthrax toxins of *Bacillus anthracis* for IV infusion

Comment: Anthrasil is indicated for the emergent treatment of inhaled anthrax in combination with appropriate antibacterial agents

ciprofloxacin (C) <18 years: 20-40 mg/kg/day divided q 12 hours; ≥18 years: 500 mg or 10-15 mg/kg/day) q 12 hours for 60 days; max 1.5 gm/day; start as soon as possible after exposure
</p>

Cipro (G) *Tāb*: 250, 500, 750 mg; *Oral susp*: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, >100 lb: 100 mg bid; see page 561 for dose by weight table

Acticlate *Tab*: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin *Tab*: 100 mg; *Cap*: 50, 100 mg; *Syr*: 50 mg/5 ml (raspberry-apple) (sulfites); *Oral susp*: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

minocycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb q 12 hours x 9 more days; ≥8 years, >100 mg: 100 mg q 12 hours

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.

### TREATMENT OF INHALATIONAL, GI, AND OROPHARYNGEAL ANTHRAX

ciprofloxacin (C) <18 years: 10-15 mg/kg IV q 12 hours (start as soon as possible); then switch to 10-15 mg/kg PO q 12 hours for 60 days; ≥18 years: 400 mg IV q 12 hours (start as soon as possible); then, switch to 500 mg PO q 12 hours for total 60 days max 1.5 gm/day;
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry); IV conc: 10 mg/ml after dilution (20, 40 ml); IV premix: 2 mg/ml (100, 200 ml)

Cipro XR Tab: 500, 1,000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture. Infuse IV *ciprofloxacin* over 60 minutes

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses for 10 days; ≥8 years, >100 lb: 100 mg bid day 1; then 100 mg daily x 10 days; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin *Tab:* 100 mg; *Cap:* 50, 100 mg; *Syr:* 50 mg/5 ml (raspberry-apple) (sulfites); *Oral susp:* 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: doxycycline is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

minocycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb q 12 hours x 9 more days; ≥8 years, >100 lb: 100 mg q 12 hours

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.



## ANXIETY DISORDER: GENERALIZED (GAD)/ANXIETY DISORDER: SOCIAL (SAD)

### **1ST GENERATION ANTIHISTAMINE**

*▶ diphenhydramine* (B)(G)

Benadryl (OTC) <2 years: not recommended; 2-6 years: 6.25 mg q 4-6 hours; max 37.5 mg/day; >6-12 years: 12.5-25 mg q 4-6 hours; max 150 mg/day; >12 years: 25-50 mg q 6-8 hours; max 100 mg/day

Chew tab: 12.5 mg (grape) (phenylalanine); Liq: 12.5 mg/5 ml (4, 8 oz); Cap: 25 mg; Tab: 25 mg; Dye-free soft gel: 25 mg; Dye-free liq: 12.5 mg/5 ml (4, 8 oz)

► diphenhydramine injectable (B)(G)

Benadryl Injectable <12 years: See  $mfr\ pkg$  insert: 1.25 mg/kg up to 25 mg IM x 1 dose; then q 6 hours prn;  $\geq$ 12 years: 25-50 mg IM immediately; then q 6 hours prn

Vial: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multi-dose); Amp: 10 mg/ml (1 ml); Prefilled syringe: 50 mg/ml (1 ml)

hydroxyzine (C)(G) <6 years: 50 mg/day divided qid; ≥6-12 years: 50-100 mg/day divided qid; ≥12 years: 50-100 mg qid; max 600 mg/day</p>

Atarax Tab: 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)

Vistaril Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

Comment: *hydroxyzine* is contraindicated in early pregnancy and in patients with a prolonged QT interval. It is not known whether this drug is excreted in human milk; therefore, *hydroxyzine* should not be given to nursing mothers.

### **AZAPIRONE**

buspirone (B) <6 years: not recommended; ≥6 years: initially 7.5 mg bid; may increase by 5 mg/day q 2-3 days; max 60 mg/day</p>
BuSpar Tab: 5, 10, 15\*, 30\* mg

### BENZODIAZEPINES

Comment: If possible when considering a benzodiazepine to treat anxiety, a shortacting benzodiazepine should be used only prn to avert intense anxiety and panic and for the least time necessary while a different non-addictive antianxiety regimen (e.g., SSRI, SNRI, TCA, buspirone, beta-blocker) is established and effective treatment goals achieved. Benzodiazepines have a high addiction potential when they are chronically used and are common drugs of abuse. Benzodiazepine withdrawal syndrome may include restlessness, agitation, anxiety, insomnia, tachycardia, tachypnea, diaphoresis, and may be potentially life-threatening depending on the benzodiazepine and the length of use. Symptoms of withdrawal from short-acting benzodiazepines, such as alprazolam (Xanax), oxazepam, lorazepam (Ativan), triazolam (Halcion), usually appear within 6-8 hours after the last dose and may continue 10-14 days. Symptoms of withdrawal from long-acting benzodiazepines, such as diazepam (Valium), clonazepam (Klonopin), chlordiazepoxide (Librium), usually appear within 24-96 hours after the last dose and may continue from 3-4 weeks to 3 months. People who are heavily dependent on benzodiazepines may experience protracted withdrawal syndrome (PAWS), random periods of sharp withdrawal symptoms months after

quitting. A closely monitored medical detoxification regimen may be required for a safe withdrawal and to prevent PAWS. Detoxification includes gradual tapering of the benzodiazepine along with other medications to manage the withdrawal symptoms.

### **Short Acting**

≥ alprazolam (D)(IV)(G)

Niravam <18 years: not recommended; ≥18 years: initially 0.25-0.5 mg tid; may titrate every 3-4 days; max 4 mg/day

Tab: 0.25\*, 0.5\*, 1\*, 2\*mg orally-disint

Xanax <18 years: not recommended; ≥18 years: initially 0.25-0.5 mg tid; may titrate every 3-4 days; max 4 mg/day

Tab: 0.25\*, 0.5\*, 1\*, 2\*mg

Xanax XR <18 years: not recommended; ≥18 years: initially 0.5-1 mg once daily, preferably in the AM; increase at intervals of at least 3-4 days by up to 1 mg/day. Taper no faster than 0.5 mg every 3 days; max 10 mg/day. When switching from immediate-release *alprazolam*, give total daily dose of immediate-release once daily.

*Tab*: 0.5, 1, 2, 3 mg ext-rel

oxazepam (C)(IV)(G) <12 years: not recommended; ≥12 years: 10-15 mg tid-qid for moderate symptoms; 15-30 mg tid-qid for severe symptoms</p>

Cap: 10, 15, 30 mg

### Intermediate Acting

lorazepam (D)(IV)(G) <12 years: not recommended; ≥12 years: 1-10 mg/day in 2-3 divided doses</p>

**Ativan** *Tab*: 0.5, 1\*, 2\*mg

Lorazepam Intensol Oral conc: 2 mg/ml (30 ml w. graduated dropper)

### **Long Acting**

chlordiazepoxide (D)(IV)(G)

**Librium** <6 years: not recommended; 6-12 years: 5 mg bid-qid; increase to 10 mg bid-tid; ≥12 years: 5-10 mg tid-qid for moderate symptoms; 20-25 mg tid-qid for severe symptoms

Cap: 5, 10, 25 mg

Librium Injectable <12 years: not recommended; ≥12 years: 50-100 mg IM or IV; then 25-50 mg IM tid-qid prn; max 300 mg/day

*Inj*: 100 mg

chlordiazepoxide/clidinium (D)(IV) <12 years: not recommended; ≥12 years: 1-2 caps tid-qid: max 8 caps/day</p>

Librax Cap: chlor 5 mg/clid 2.5 mg

clonazepam (D)(IV)(G) <18 years: not recommended; ≥18 years: initially 0.25 mg
 bid; increase to 1 mg/day after 3 days
</p>

Klonopin Tab: 0.5\*, 1, 2 mg

Klonopin Wafers dissolve in mouth with or without water

Wafer: 0.125, 0.25, 0.5, 1, 2 mg orally-disint

clorazepate (D)(IV)(G) < 9 years: not recommended; ≥ 9 years: 30 mg/day in divided doses; max 60 mg/day
</p>

Tranxene Tab: 3.75, 7.5, 15 mg

Tranxene SD do not use for initial therapy

Tab: 22.5 mg ext-rel

Tranxene SD Half Strength do not use for initial therapy

Tab: 11.25 mg ext-rel

Tranxene T-Tab Tab: 3.75\*, 7.5\*, 15\*mg

 $\blacktriangleright$  diazepam (D)(IV)(G) <12 years: not recommended;  $\ge$ 12 years: 2-10 mg bid to qid

Diastat Rectal gel delivery system: 2.5 mg

Diastat AcuDial Rectal gel delivery system: 10, 20 mg

**Valium** *Tab*: 2\*, 5\*, 10\*mg

Valium Injectable Vial: 5 mg/ml (10 ml); Amp: 5 mg/ml (2 ml); Prefilled syringe:

5 mg/ml (5 ml)

Valium Intensol Oral Solution Conc oral soln: 5 mg/ml (30 ml w. dropper) (alcohol 19%)

Valium Oral Solution Oral soln: 5 mg/5 ml (500 ml) (wintergreen spice)

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab: 10, 25, 50, 75, 100, 150 mg
- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid;
   after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if
   total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as
   a single bedtime dose (max 300 mg q HS)
  </p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

**Anafranil** *Cap*: 25, 50, 75 mg

desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin *Tab*: 10, 25, 50, 75, 100, 150 mg

Description (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day

 day
</p>

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg

Cap: 75, 100, 125, 150 mg

 nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tidqid; max 150 mg/day

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
</p>

Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg

### **PHENOTHIAZINES**

▶ prochlorperazine (C)(G)

Compazine <12 years: not recommended; ≥12 years: 5 mg tid-qid Tab: 5 mg; Syr: 5 mg/5 ml (4 oz) (fruit); Rectal supp: 2.5, 5, 25 mg Compazine Spansule <12 years: not recommended; ≥12 years: 15 mg q AM or 10 mg q 12 hours

Spansule: 10, 15 mg sust-rel

trifluoperazine (C)(G) <12 years: not recommended; ≥12 years: 1-2 mg bid; max 6 mg/day; max 12 weeks
</p>

Stelazine Tab: 1, 2, 5, 10 mg

### SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)

Comment: Co-administration of SSRIs with TCAs requires extreme caution. Concomitant use of MAOIs and SSRIs is absolutely contraindicated. Avoid St. John's wort and other serotonergic agents. A potentially fatal adverse event is *serotonin syndrome*, caused by serotonin excess. Milder symptoms require HCP intervention to avert severe symptoms that can be rapidly fatal without urgent/emergent medical care. Symptoms include restlessness, agitation, confusion, tachycardia, hypertension, dilated pupils, muscle twitching, muscle rigidity, loss of muscle coordination, diaphoresis, diarrhea, headache, shivering, piloerection, hyperpyrexia, cardiac arrhythmias, seizures, loss of consciousness, coma, death. Common symptoms of the *serotonin discontinuation syndrome* include flu-like symptoms (nausea, vomiting, diarrhea, headaches, diaphoresis); sleep disturbances (insomnia, nightmares, constant sleepiness); mood disturbances (dysphoria, anxiety, agitation); cognitive disturbances (mental confusion, hyperarousal); and sensory and movement disturbances (imbalance, tremors, vertigo, dizziness, electric-shock-like sensations in the brain often described by sufferers as "brain zaps").

citalopram (C)(G) <12 years: not recommended; ≥12 years: initially 20 mg once daily; may increase after one week to 40 mg once daily; max 40 mg

Celexa *Tab*: 10, 20, 40 mg; *Oral soln*: 10 mg/5 ml (120 ml) (pepper mint)(sugar-free, alcohol-free, parabens)

escitalopram (C)(G) <12 years: not recommended; 12-17 years: initially 10 mg daily; may increase to 20 mg daily after 3 weeks; ≥17 years: initially 10 mg daily; may increase to 20 mg daily after 1 week; Hepatic impairment: 10 mg once daily</p>

Lexapro Tab: 5, 10\*, 20\*mg

Lexapro Oral Solution Oral soln: 1 mg/ml (240 ml) (peppermint) (parabens)

▶ fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10 mg/day; may increase after 1 week to 20 mg/day; range 20-60 mg/day; range for lower weight children, 20-30 mg/day; ≥17 years: initially 20 mg daily; may increase after 1 week; doses >20 mg/day should be divided into AM and noon doses; max 80 mg/day

Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint)

Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxetine therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after
the last 20 mg fluoxetine dose

Cap: 90 mg ent-coat del-rel pellets

| levomilnacipran (C) <12 years: not recommended; ≥12 years: swallow whole; initially 20 mg once daily for 2 days; then increase to 40 mg once daily; may increase dose in 40 mg increments at intervals of ≥2 days; max 120 mg once daily; CrCl 30-59 mL/min: max 80 mg once daily; CrCl 15-29 mL/min: max 40 mg once daily Fetzima Cap: 20, 40, 80, 120 mg ext-rel</p>

paroxetine maleate (D)(G)

Paxil <12 years: not recommended; ≥12 years; initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day *Tab*: 10\*, 20\*, 30, 40 mg

Paxil CR <12 years: not recommended; ≥12 years: initially 25 mg daily in AM; may increase by 12.5 mg at weekly intervals as needed; max 62.5 mg/day

Tab: 12.5, 25, 37.5 mg cont-rel ent-coat

Paxil Suspension <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day Oral susp: 10 mg/5 ml (250 ml) (orange)

> sertraline (C)(G) <6 years: not recommended; 6-<12 years: initially 25 mg daily; max 200 mg/day; 12-17 years: initially 50 mg daily; max 200 mg/day ≥17 years: initially 50 mg daily; increase at 1 week intervals if needed; max 200 mg daily; dilute oral concentrate immediately prior to administration in 4 oz water, ginger ale, lemon/lime soda, lemonade, or orange juice

**Zoloft** *Tab*: 25\*, 50\*, 100\*mg; *Oral conc*: 20 mg per ml (60 ml) (alcohol 12%)

### SEROTONIN AND NOREPINEPHRINE REUPTAKE INHIBITORS (SNRIs)

desvenlafaxine (C)(G) <18 years: not recommended; ≥18 years: swallow whole; initially 50 mg once daily; max 120 mg/day
</p>

Pristiq Tab: 50, 100 mg ext-rel

duloxetine (C)(G) <12 years: not recommended; ≥12 years: swallow whole; initially 30 mg once daily x 1 week; then, increase to 60 mg once daily; max 120 mg/day Cymbalta Cap: 20, 30, 40, 60 mg del-rel</p>

venlafaxine (C)(G)

Effexor initially <12 years: not recommended; ≥12 years: 75 mg/day in 2-3 divided doses; may increase at 4 day intervals in 75 mg increments to 150 mg/day; max 225 mg/day

Tab: 37.5, 75, 150, 225 mg

Effexor XR <18 years: not recommended; ≥18 years: initially 75 mg q AM; may start at 37.5 mg daily x 4-7 days, then increase by increments of up to 75 mg/day at intervals of at least 4 days; usual max 375 mg/day

Tab/Cap: 37.5, 75, 150 mg ext-rel

vortioxetine (C) <18 years: not established; ≥18 years: initially 10 mg once daily; max 30 mg/day

Brintellix Tab: 5, 10, 15, 20 mg

### **COMBINATION AGENTS**

> chlordiazepoxide/amitriptyline (D)(G)

Limbitrol <12 years: not recommended; ≥12 years: 3-4 tabs/day in divided doses

Tab: chlor 5 mg/amit 12.5 mg

Limbitrol DS <12 years: not recommended; ≥12 years: 3-4 tabs/day in divided doses; max 6 tabs/day

Tab: chlor 10 mg/amit 25 mg

perphenazine/amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 1 tab bid-qid

Tab: Etrafon 2-10: perph 2 mg/amit 10 mg

Etrafon 2-25: perph 2 mg/amit 25 mg

Etrafon 4-25: perph 4 mg/amit 25 mg



## APHTHOUS STOMATITIS (MOUTH ULCER, CANKER SORE)

#### ANTI-INFLAMMATORY AGENTS

dexamethasone elixir (B) <12 years: not recommended; ≥12 years: 5 ml swish and spit q 12 hours
</p>

Elix: 0.5 mg/ml

➤ triamcinolone acetonide 0.1% dental paste (NE)(G) press (do not rub) thin film onto lesion at bedtime and, if needed, 2-3 x daily after meals; re-evaluate if no improvement in 7 days

Oralone Dental paste: 0.1% (5 gm)

► triamcinolone 1% in Orabase (B) <12 years: not recommended; ≥12 years: apply 1/4 inch to each ulcer bid-qid until ulcer heals

Kenalog in Orabase Crm: 1% (15, 60, 80 gm)

#### TOPICAL ANESTHETICS

- benzocaine topical gel (C)(G) apply tid-qid
- benzocaine topical spray (C)(G) 1 spray area every 2 hours as needed; retain for 15 seconds, then spit

Cepacol Spray (OTC), Chloraseptic Spray (OTC)

lidocaine viscous soln (B)(G) <3-11 years: 1.25 ml; apply with cotton-tipped applicator; may repeat after 3 hours; max 8 doses/day; ≥12 years: 15 ml gargle or swish, then spit; repeat after 3 hours; max 8 doses/day</p>

Xylocaine Viscous Solution Viscous soln: 2% (20, 100, 450 ml)

*triamcinolone* (Kenalog) in Orabase (C) apply tid-qid

### DEBRIDING AGENT/CLEANSER

carbamide peroxide 10% (NE)(OTC) apply 10 drops to affected area; swish x 2-3 minutes, then spit; do not rinse; repeat treatment qid

Gly-Oxide Lig: 10% (50, 60 ml squeeze bottle w. applicator)

### ANTI-INFECTIVES

minocycline (D)(G) <8 years: not recommended; ≥8 years: swish and spit 10 ml susp (50 mg/5 ml) or 1 x 100 mg cap or 2 x 50 mg caps dissolved in 180 ml water, bid x 4-5 days</p>

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

► tetracycline (D)(G) <8 years: not recommended; ≥8 years: swish and spit 10 ml susp (125 mg/5 ml) or one 250 mg tab/cap dissolved in 180 ml water qid x 4-5 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.



## ASPERGILLOSIS (SCEDOSPORIUM APIOSPERMUM, FUSARIUM SPP.)

### INVASIVE INFECTION

isavuconazonium (C) <18 years: not established; ≥18 years: swallow cap whole; Loading dose: 372 mg q 8 hours x 6 doses (48 hours); Maintenance: 372 mg once daily starting 12-24 hours after last loading dose

Cresemba *Cap*: 186 mg; Vial: 372 mg pwdr for reconstitution (7/blister pck) (preservative-free)

Comment: Cresemba is indicated for the treatment of invasive aspergillus and mucormycosis in patients ≥18 years old who are at high risk due to being severely compromised.

posaconazole (D) <13 years: not recommended; ≥13 years: take with food; swallow tab whole; Day 1: 300 mg bid; then 300 mg once daily for duration of treatment (e.g., resolution of neutropenia or immunosuppression)

Noxafil *Tab*: 100 mg del-rel; *Oral susp*: 40 mg/ml (105 oz w. dosing spoon) (cherry)

Comment: Noxafil is indicated as prophylaxis for invasive aspergillus and candida infections in patients ≥13 years old who are at high risk due to being severely compromised.

voriconazole (D)(G) <12 years: not recommended; ≥12 years: PO: <40 kg: 100 mg q 12 hours; may increase to 150 mg q 12 hours if inadequate response; ≥40 kg: 200 mg q 12 hours; may increase to 300 mg q 12 hours if inadequate; IV: 6 mg/kg q 12 hours x 2 doses; then 4 mg/kg q 12 hour; max rate 3 mg/kg/hour over 1-2 hours; response</p>

Vfend Tab: 50, 200 mg

Vfend I.V. for Injection Vial: 200 mg pwdr for reconstitution (preservative-free)
Vfend Oral susp: 40 mg/ml pwdr for reconstitution (75 ml)(orange)



### **ASTHMA**

### LEUKOTRIENE RECEPTOR ANTAGONISTS (LRAs)

**Comment:** The LRAs are indicated for prophylaxis and chronic treatment, only. Not for primary (rescue) treatment of acute asthma attack.

montelukast (B)(G) < 12 months: not recommended; 12-23 months: one 4 mg granule pkt daily; 2-5 years: one 4 mg chew tab or granule pkt daily; >5-14 years: one 5 mg chew tab daily; >14 years: 10 mg once daily in the PM; for EIB, take at least 2 hours before exercise; max 1 dose/day

Singulair Tab: 10 mg

Singulair Chewable Chew tab: 4, 5 mg (cherry) (phenylalanine)

Singulair Oral Granules Granules: 4 mg/pkt; take within 15 minutes of opening pkt; may mix with applesauce, carrots, rice, or ice cream

Zafirlukast (B) <7 years: not recommended; 7-11 years: 10 mg bid 1 hour ac or 2 hours pc; >11 years: 20 mg bid, 1 hour ac or 2 hours pc

Accolate Tab: 10, 20 mg

 $\triangleright$  *zileuton* (C)(G) <12 years: not recommended; ≥12 years:

Zyflo 600 mg qid Tab: 600 mg Zyflo CR 1200 mg bid Tab: 600 mg ext-rel

### IGE BLOCKER (IGG1K MONOCLONAL ANTIBODY)

Xolair Vial: 150 mg pwdr for SC injection after reconstitution (preservative-free)

### INHALED ANTICHOLINERGICS

*ipratropium bromide* (C)(G) <12 years: not established; ≥12 years:

Atrovent 2 inhalations qid; additional inhalations as required; max 12 inhalations/day

Inhaler: 18 mcg/actuation (14 g, 200 inh)

Atrovent Inhalation Solution 500 mcg tid-qid prn by nebulizer

Inhal soln: 0.02% (500 mcg in 2.5 ml; 25/carton)

**Comment**: *ipratropium bromide* is contraindicated with severe hypersensitivity to milk proteins.

### INHALED CORTICOSTEROIDS

Comment: Instruct patient to rinse mouth after using an inhaled steroid to reduce risk of oral candidiasis. Not for primary (rescue) treatment of acute asthma attack.

beclomethasone dipropionate (C)(G) <12 years: not established; ≥12 years: Previously using only bronchodilators: initiate 40-80 mcg bid; max 320 mcg bid; Previously using inhaled corticosteroid: initiate 40-160 mcg bid; max 320 mcg/day; Previously taking a systemic corticosteroid: attempt to wean off the systemic drug after approximately 1 week after initiating; rinse mouth after use

#### Ouark

*Inhal aerosol:* 40, 80 mcg/metered dose actuation (8.7 g, 120 inh) metered dose inhaler (chlorofluorocarbon [CFC]-free)

### budesonide (B)

Pulmicort Flexhaler <6 years: not recommended; 6-12 years: 1-2 inhalations bid; >12 years: initially 180-360 mcg bid; max 360 mcg bid; rinse mouth after use Flexhaler: 90 mcg/actuation (60 inh); 180 mcg/actuation (120 inh)

Pulmicort Respules (G) <12 months: not recommended; 12 months-8 years: Previously using only bronchodilators: initiate 0.5 mg/day once daily or in 2 divided doses; may start at 0.25 mg daily; Previously using inhaled corticosteroids: initiate 0.5 mg once daily or in 2 divided doses; max 1 mg/day; Previously taking oral corticosteroids: initiate 1 mg/day daily or in 2 divided doses; >8-12 years: use flexhaler; rinse mouth after use; >12 years: use Pulmicort Flexhaler Inhal susp: 0.25, 0.5, 1 mg/2 ml (30/carton)

ciclesonide (C) <12 years: not recommended; ≥12 years: initially 80 mcg bid; max 320 mcg/day; rinse mouth after use; Previously on inhaled corticosteroid: initially 80 mcg bid; Previously on oral steroid: 320 mg bid
</p>

Alvesco Inhal aerosol: 80, 160 mcg/actuation (6.1 g, 60 inh)

### ▶ flunisolide (C)

AeroBid, AeroBid-M <6 years: not recommended; 6-15 years: 2 inhalations bid; >15 years: initially 2 inhalations bid; max 8 inhalations/day; rinse mouth after use

Inhaler: 250 mcg/actuation (7 g, 100 inh)

Aerospan HFA <6 years: not recommended; 6-11 years: 80 mcg bid; max 160 mcg bid; >11 years: initially 160 mcg bid; max 320 mcg bid Inhaler: 80 mcg (5.1 g, 60 doses; 80 mcg, 120 doses)

▶ fluticasone furoate (C) <12 years: not recommended; ≥12 years: Currently not on inhaled corticosteroid: usually initiate at 100 mcg once daily at the same time each day; may increase to 200 mcg once daily if inadequate response after 2 weeks; max 200 mcg/day; rinse mouth after use</p>

Arnuity Ellipta Inhal: 100, 200 mcg/dry pwdr per inhalation (30 doses) Comment: Arnuity Ellipta is not for primary treatment of status asthmaticus or acute asthma episodes. Arnuity Ellipta is contraindicated with severe hypersensitivity to milk proteins.

### fluticasone propionate (C)

Flovent HFA <11 years: use Flovent Diskus; ≥12 years: initially 88 mcg bid; Previously using an inhaled corticosteroid: initially 88-220 mcg bid; Previously taking an oral corticosteroid: 880 mcg bid; rinse mouth after use

*Inhaler*: 44 mcg/actuation (7.9 g, 60 inh; 13 g, 120 inh); 110 mcg/actuation (13 g, 120 inh); 220 mcg/actuation (13 g, 120 inh) (CFC-free)

Flovent Diskus <4 years: not recommended; 4-11 years: initially 50 mcg bid; max 100 mcg bid; rinse mouth after use; ≥11 years: may use Flovent HFA; initially 100 mcg bid; max 500 mcg bid; *Previously using an inhaled corticosteroid*: initially 100-250 mcg bid; max 500 mcg bid; *Previously taking an oral corticosteroid*: 1000 mcg bid

Diskus: 50, 100, 250 mcg/inh dry pwdr (60 blisters w. diskus)

### mometasone furoate (C)

Asmanex HFA <12 years: not recommended;  $\geq$ 12 years: 220-440 mcg once daily or bid; max 880 mcg/day; rinse mouth after use

Inhaler: 100, 200 mcg/actuation (13 g, 120 inh)

Asmanex Twisthaler <4 years: not recommended; 4-11 years: 110 mcg once daily in the PM; ≥12 years: may use Asmanex HFA; rinse mouth after use *Inhaler*: 110 mcg/actuation (30 inh), 220 mcg/actuation (30, 60, 120 inh)

**▶** triamcinolone (C)

Azmacort <6 years: not recommended; 6-12 years: 1-2 inhalations tid or 2-4 inhalations bid; >12 years: 2 inhalations tid-qid or 4 inhalations bid; rinse mouth after use

Inhaler: 100 mcg/actuation (20 g, 240 inh)

### INHALED MAST CELL STABILIZERS (PROPHYLAXIS)

Comment: IMCSs are for prophylaxis and chronic treatment, only. Not for primary (rescue) treatment of acute asthma attack.

### cromolyn sodium (B)(G)

Intal <2 years: not recommended; 2-5 years: use inhal soln via nebulizer; >5 years: 2 inhalations qid via inhaler

*Inhaler:* 0.8 mg/actuation (8.1, 14.2 g; 112, 200 inh) 2 inhalations qid; 2 inhalations up to 10-60 minutes before precipitant as prophylaxis; rinse mouth after use

Intal Inhalation Solution <2 years: not recommended; ≥2 years: 20 mg by nebulizer qid; 20 mg up to 10-60 minutes before precipitant as prophylaxis

Inhal soln: 20 mg/2 ml (60, 120/carton)

### nedocromil sodium (B)

 $Tilade < 6 \text{ years: not recommended; } \ge 6 \text{ years: 2 sprays qid; rinse mouth after use}$ 

Inhaler: 1.75 mg/spray (16.2 g; 104 sprays)

**Tilade Nebulizer Solution 0.5%** <2 years: not recommended; ≥2 years: initially 1 amp qid by nebulizer; 2-5 years: initially 1 amp tid by nebulizer; ≥5 years: 1 amp qid by nebulizer

*Inhal soln*: 11 mg/2.2 ml (2 ml; 60, 120/carton)

### INHALED BETA AGONISTS (BRONCHODILATORS)

### *▶* albuterol sulfate (C)(G)

AccuNeb Inhalation Solution <2 years: not recommended; 2-12 years: initially 0.63 mg or 1.25 mg tid-qid; 6-12 years: Severe asthma or >40 kg or 11-12 years: initially 1.25 mg tid-qid by nebulizer; >12 years: not recommended

Inhal soln: 0.63, 1.25 mg/3 ml (3 ml, 25/carton) (preservative-free)

**Albuterol Inhalation Solution (G)** <2 years: not recommended;  $\geq$ 2 years: 1 vial via nebulizer q 4-6 hours prn

Inhal soln: 0.63 mg/3 ml (0.021%); 1.25 mg/3 ml (0.042%) (25/carton)

Albuterol Inhalation Solution 0.5% (G) <4 years: not recommended;  $\geq$ 4 years: 1 vial via nebulizer q 4-6 hours prn

Inhal soln: 0.083% (25/carton)

**Albuterol Nebules (G)** <12 years: use other forms; ≥12 years: 2.5 mg (0.5 ml of 5% diluted to 3 ml with sterile NS or 3 ml of 0.083%) tid-qid via nebulizer

Inhal soln: 0.083% (25/carton)

Proair HFA Inhaler <4 years: not established; ≥4 years: 1-2 inhalations q 4-6 hours prn; 2 inhalations 15 minutes before exercise as prophylaxis for exercise-induced asthma (EIA)

Inhaler: 90 mcg/actuation (0.65 g, 200 inh) (CFC-free)

Proair RespiClick <12 years: not established; ≥12 years: 1-2 inhalations q 4-6 hours prn; 2 inhalations 15-30 minutes before exercise as prophylaxis for exercise-induced asthma (EIA)

Inhaler: 90 mcg/actuation (8.5 g, 200 inh)

Proventil HFA Inhaler <4 years: use syrup; ≥4 years: 1-2 inhalations q 4-6 hours prn; 2 inhalations 15 minutes before exercise as prophylaxis for exercise-induced asthma (EIA)

Inhaler: 90 mcg/actuation with a dose counter (6.7 g, 200 inh)

**Proventil Inhalation Solution** <12 years: use syrup; ≥12 years: 2.5 mg diluted to 3 ml with normal saline tid-qid prn by nebulizer

Inhal soln: 0.5% (20 ml w. dropper); 0.083% (3 ml; 25/carton)

Ventolin Inhaler <2 years: not recommended; 2-4 years: use syrup; >4 years: 2 inhalations q 4-6 hours prn; 2 inhalations 15 minutes before exercise as prophylaxis for exercise-induced asthma

Inhaler: 90 mcg/actuation (17 g, 220 inh)

Ventolin Rotacaps <4 years: not recommended; ≥4 years 1-2 caps q 4-6 hours prn; 2 inhalations 15 minutes before exercise as prophylaxis for exercise-induced asthma (EIA)

Rotacaps: 200 mcg/Rotacaps (100 doses/Rotacaps)

Ventolin 0.5% Inhalation Solution <2 years: not recommended;  $\geq$ 2 years: initially 0.1-0.15 mg/kg/dose tid-qid prn; 10-15 kg: 0.25 ml diluted to 3 ml with normal saline by nebulizer tid-qid prn; >15 kg: 0.5 ml diluted to 3 ml with normal saline by nebulizer tid-qid prn

*Inhal soln*: 20 ml w. dropper

Ventolin Nebules <2 years: not recommended; ≥2 years: initially 0.1-0.15 mg/kg/dose tid-qid prn; 10-15 kg: 1.25 mg or 1/2 nebule tid-qid prn; >15 kg: 2.5 mg or 1 nebule tid-qid prn

Inhal soln: 0.083% (3 ml; 25/carton)

isoproterenol (B) <12 years: not recommended; ≥12 years: Rescue: 1 inhalation prn; repeat if no relief in 2-5 minutes; Maintenance: 1-2 inhalations q 4-6 hours</p>

Medihaler-1SO Inhaler: 80 mcg/actuation (15 ml, 30 inh)

▶ levalbuterol (C)(G) <12 years: not recommended; ≥12 years: initially 0.63 mg tid q 6-8 hours prn by nebulizer; may increase to 1.25 mg tid at 6-8 hour intervals as needed

Xopenex Inhal soln: 0.31, 0.63, 1.25 mg/3 ml (24/carton) (preservative-free) Xopenex HFA Inh: 45 mg (15 g, 200 inh) (preservative-free)

Xopenex Concentrate Vial: 1.25 mg/0.5 ml (30/carton) (preservative-free)

metaproterenol (C)(G)

Alupent <6 years: use syrup; 6-12 years: via nebulizer 0.1-0.2 ml diluted with normal saline to 3 ml, up to q 4 hours prn; >12 years: 2-3 inhalations tid-qid prn; max 12 inhalations/day

Inhaler: 0.65 mg/actuation (14 g, 200 doses)

Alupent Inhalation Solution <6 years: use syrup 6-12 years: via nebulizer 0.1-0.2 ml diluted with normal saline to 3 ml, up to q 4 hours prn; >12 years: 5-15 inhalations tid-qid prn or q 4 hours prn for acute attack

Inhal soln: 5% (10, 30 ml w. dropper)

pirbuterol (C) <12 years: not recommended; ≥12 years: 1-2 inhalations q 4-6 hours prn; max 12 inhalations/day

Maxair Autohaler: 200 mcg/actuation (14 g, 400 inh); Inhaler: 200 mcg/actuation (25.6 g, 300 inh)

**>** terbutaline (B) <12 years: not recommended; ≥12 years: 2 inhalations q 4-6 hours

Inhaler: 0.2 mg/actuation (10.5 g, 300 inh)

### INHALED RACEPINEPHRINE (BRONCHODILATOR)

➤ racepinephrine (C)(OTC)(G) <4 years: not recommended; ≥4 years: 1-3 inhalations not more than every 3 hours; max 12 inhalations/24 hours

Asthmanefrin Ínhaler Starter kit:  $10 \times 0.5$  ml vials 2.25% solution for atomized inhalation w. EZ Breathe Atomizer; *Refills*:  $30 \times 0.5$  ml vials 2.25% solution for atomized inhalation

Comment: Inhalational epinephrine is only recommended for use during pregnancy when there are no alternatives and benefit outweighs risk.

### INHALED LONG-ACTING ANTICHOLINERGIC

betiotropium (as bromide monohydrate) (C) <12 years: not recommended; ≥12 years: 2 inhalations once daily using inhalation device; do not swallow caps
</p>

Spiriva HandiHaler Inhal device: 18 mcg/cap pwdr for inhalation (5, 30, 90 caps w. inhalation device)

**Spiriva Respimat** *Inhal device*: 1.25, 2.5 mcg/actuation cartridge w. inhalation device (4 g, 60 metered actuations) (benzalkonium chloride)

**Comment**: *tiotropium* is for prophylaxis and chronic treatment, only. Not for primary (rescue) treatment of acute attack. Avoid getting powder in eyes. Caution with narrow-angle glaucoma, BPH, bladder neck obstruction, and pregnancy. Contraindicated with allergy to *atropine* or its derivatives (e.g., *ipratropium*).

### INHALED ANTICHOLINERGIC/BETA AGONIST

ipratropium bromide/albuterol sulfate (C)

Combivent <12 years: not recommended; ≥12 years: 2 inhalations qid; additional inhalations as required; max 12 inhalations/day

Inhaler: ipra 18 mcg/albu 90 mcg/actuation (14.7 g, 200 inh)

**Duoneb** <18 years: not recommended; ≥18 years: 1 vial via nebulizer 4-6 times daily prn

*İnhal soln: ipra* 0.5 mg (0.017%)/*albu* 2.5 mg (0.083%) per 3 ml (23/carton)

olodaterol (C)

Striverdi Respimat <12 years: not established; ≥12 years: 12 mcg q 12 hours Inhal soln: 2.5 mcg/cartridge (metered actuation) (40 g, 60 metered actuations) (benzalkonium chloride)

**Comment: Striverdi Respimat** is contraindicated in persons with asthma without use of long-term control medication.

➤ salmeterol (C)(G) <4 years: not recommended; 4-12 years: 1 inhalation q 12 hours prn; 1 inhalation at least 30-60 minutes before exercise as prophylaxis for exercise-induced asthma; do not use extra doses for exercise-induced bronchospasm if

already using regular dose; >12 years: 2 inhalations q 12 hours prn; 2 inhalations at least 30-60 minutes before exercise as prophylaxis for exercise-induced asthma; do not use extra doses for exercise-induced bronchospasm if already using regular dose Serevent Diskus

Diskus (pwdr): 50 mcg/actuation (60 doses/disk)

### CORTICOSTEROID/INHALED LONG-ACTING BETA AGONIST (LABA)

budesonide/formoterol (C) <12 years: not recommended; ≥12 years: 1 inhalation bid: rinse mouth after use

Symbicort 80/4.5 Inhaler: bud 80 mcg/for 4.5 mcg

Symbicort 160/4.5 Inhaler: bud 160 mcg/for 4.5 mcg

► fluticasone propionate/salmeterol (C)

Advair HFA Not previously using inhaled steroid: start with 2 inh 45/21 or 115/21 bid; if insufficient response after 2 weeks, use next higher strength; max 2 inh 230/50 bid; allow 12 hours between doses; Already using inhaled steroid; see mfr pkg insert; rinse mouth after use

Advair HFA 45/21 <12 years: not recommended

Inhaler: flu pro 45 mcg/sal 21 mcg/actuation (CFC-free)

Advair HFA 115/21 <12 years: not recommended

Inhaler: flu pro 115 mcg/sal 21 mcg/actuation (CFC-free)

Advair HFA 230/21 <12 years: not recommended

Inhaler: flu pro 230 mcg/sal 21 mcg/actuation (CFC-free)

Advair Diskus *Not previously using inhaled steroid:* start with 1 inh 100/50 bid; *Already using inhaled steroid:* see mfr pkg insert; rinse mouth after use

Advair Diskus 100/50 <4 years: not recommended; ≥4 years: 1 inhalation bid; not a rescue inhaler; allow 12 hours between doses

*Diskus: flu pro* 100 mcg/*sal* 50 mcg/actuation (60 blisters)

Advair Diskus 250/50 4-12 years: use 100/50 strength; >12 years: 1 inhalation bid; rinse mouth after use; not a rescue inhaler; allow 12 hours between doses *Diskus: flu pro* 250 mcg/sal 50 mcg/actuation (60 blisters)

Advair Diskus 500/504-12 years: use 100/50 strength; ≥12 years: 1 inhalation bid; rinse mouth after use; not a rescue inhaler; allow 12 hours between doses *Diskus: flupro* 500 mcg/sal 50 mcg/actuation (60 blisters)

► fluticasone furoate/vilanterol (C) <17 years: not established; ≥17 years: 1 inhalation 100/25 once daily at the same time each day
</p>

Breo Ellipta 100/25 Inhal pwdr: flu 100 mcg/vil 25 mcg dry pwdr per inhal (30 doses)

**Breo Ellipta 200/25** *Inhal pwdr: flu* 200 mcg/*vil* 25 mcg dry pwdr per inhal (30 doses)

**Comment: Breo Ellipta** is contraindicated with severe hypersensitivity to milk proteins.

mometasone furoate/formoterol fumarate (C) <12 years: not established; ≥12 years: 2 inhalations bid; not a rescue inhaler; rinse mouth after use;
</p>

Dulera 100/5 Inhaler: mom 100 mcg/for 5 mcg (HFA) Dulera 200/5 Inhaler: mom 200 mcg/for 5 mcg (HFA)

### ANTICHOLINERGIC/INHALED LONG-ACTING BETA AGONIST (LABA)

Bevespi Aerosphere Metered dose inhaler: 9/4.8 Inhal pwdr: gly 9 mcg/for 4.8 mcg per inhal (10.7 g, 120 inh)

### ORAL BETA2-AGONISTS (BRONCHODILATORS)

### albuterol (C)

Albuterol Syrup (G) <2 years: not recommended; 2-6 years: 0.1 mg/kg tid; initially max 2 mg tid; may increase gradually to 0.2 mg/kg tid; max 4 mg tid; >6-12 years: 2 mg tid-qid; may increase gradually; max 6 mg qid;  $\geq$ 12 years: 2-4 mg tid-qid; may increase gradually; max 8 mg qid

Syr: 2 mg/5 ml

Proventil <6 years: use syrup; ≥6 years: 2-4 mg tid-qid prn

Tab: 2, 4 mg

Proventil Repetabs 4-8 mg q 12 hours prn

Repetab: 4 mg sust-rel

Proventil Syrup <2 years: not recommended; 2-6 years: 0.1 mg/kg tid prn; max initially 5 ml tid prn; may increase gradually to 0.2 mg/kg tid prn; max 10 ml tid; >6-14 years: 5 ml tid-qid prn; may increase gradually; max 60 ml/day in divided doses; >14 years: 5-10 ml tid-qid prn; may increase gradually; max 20 ml qid prn

Syr: 2 mg/5 ml

Ventolin <2 years: not recommended; 2-6 years: 0.1 mg/kg tid prn; max initially 2 mg tid prn; may increase gradually to 0.2 mg/kg tid; max 4 mg tid; >6-14 years: 2 mg tid-qid prn; may increase gradually; max 6 mg tid; >14 years: 2-4 mg tid-qid prn; may increase gradually; max 8 mg qid

Tab: 2, 4 mg; Syr: 2 mg/5 ml (strawberry)

**VoSpire ER** <6 years: not recommended; 6-12 years: 4 mg q 12 hours; max 24 mg/day q 12 hours; >12 years: 4-8 mg q 12 hours prn; max 32 mg/day divided q 12 hours; swallow whole

Tab: 4, 8 mg ext-rel

### metaproterenol (C)

**Álupent** <6 years: not recommended (doses of 1.3-2.6 mg/kg/day have been used); ≥6-9 years (<60 lb): 10 mg tid-qid prn; >9-12 years (>60 lb): 20 mg tid-qid prn; >12 years: 20 mg tid-qid prn

Tab: 10, 20 mg; Syr: 10 mg/5 ml

### **METHYLXANTHINES**

Comment: Check serum theophylline level just before 5th dose is administered. Therapeutic theophylline level: 10-20 mcg/ml.

### ► theophylline (C)(G)

Theo-24 <45 kg: initially 12-14 mg/kg/day; max 300 mg/day; increase after 3 days to 16 mg/kg/day to max 400 mg; after 3 more days increase to 30 mg/kg/day to max 600 mg/day; ≥45 kg: initially 300-400 mg once daily at HS; after 3 days, increase to 400-600 mg once daily at HS; max 600 mg/day

Cap: 100, 200, 300, 400 mg ext-rel

Theo-Dur <6 years: not recommended; 6-15 years: initially 12-14 mg/kg/day in 2 divided doses; max 300 mg/day; then increase to 16 mg/kg in 2 divided doses; max 400 mg/day; then to 20 mg/kg/day in 2 divided doses; max 600 mg/day; ≥15 years: initially 150 mg bid; increase to 200 mg bid after 3 days; then to 300 mg bid after 3 more days

Tab: 100, 200, 300 mg ext-rel

Theolair-SR <12 years: not recommended;  $\geq$ 12 years: 200-500 once daily *Tab*: 200, 250, 300, 500 mg sust-rel

Uniphyl <12 years: not recommended; ≥12 years: 400-600 mg once daily *Tab*: 400\*, 600\* mg cont-rel

### METHYLXANTHINE/EXPECTORANT

#### HUMANIZED INTERLEUKIN-5 ANTAGONIST MONOCLONAL ANTIBODY

> mepolizumab (NE) <12 years: not recommended; ≥12 years: 100 mg SC once every 4 weeks in upper arm, abdomen, or thigh</p>

Nucala Vial: 100 mg pwdr for reconstitution, single use (preservative-free) Comment: Nucala is an add-on maintenance treatment for severe asthma. There is a pregnancy exposure registry that monitors pregnancy outcomes in females exposed to Nucala during pregnancy. Health care providers can enroll patients or encourage patients to enroll themselves by calling 1-877-311-8972 or visiting www.mothertobaby.org/asthma.



## ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

### SELECTIVE NOREPINEPHRINE REUPTAKE INHIBITOR (SNRI)

atomoxetine (C) <6 years: not recommended; ≥6 years, <70 kg: initially 0.5 mg/kg/day: increase after at least 3 days to 1.2 mg/kg/day; max 1.4 mg/kg/day or 100 mg/day (whichever is less); ≥6 years, >70 kg: take one dose daily in the morning or in two divided doses in the morning and late afternoon or early evening; initially 40 mg/kg; increase after at least 3 days to 80 mg/kg; then after 2-4 weeks may increase to max 100 mg/day

Strattera Cap: 10, 18, 25, 40, 60, 80, 100 mg

Comment: *atomoxetine* is not associated with stimulant <u>or</u> euphoric effects. May discontinue without tapering.

### STIMULANTS

### *⇒* amphetamine sulfate (C)(II)

Adzenys XT-ODT <6 years: not recommended;  $\geq$ 6 years: take with or without food; individualize the dosage according to the therapeutic needs and response; initially 6.3 mg once daily in the morning; increase in increments of 3.1 mg or 6.3 mg at weekly intervals; max recommended dose 18.8 mg once daily (6-12 years-of-age) and 12.5 mg once daily ( $\geq$ 13 years-of-age)

Comment: Patients taking Adderall XR may be switched to Adzenys XR-ODT at the equivalent dose taken once daily; switching from any other amphetamine products (e.g., Adderall immediate-release), discontinue that treatment, and

titrate with Adzenys XR-ODT using the titration schedule (see mfr pkg insert). No dosage adjustments for renal or hepatic insufficiency are provided in the manufacturer's labeling.

*ODT*: 3.1, 6.3, 9.4, 12.5, 15.7, 18.8 mg orally-disint (orange) (fructose) **Dyanavel XR Oral Suspension** <6 years: not recommended; ≥6 years: initially 2.5 mg or 5 mg once daily in the morning; may increase in increments of 2.5 mg to 5 mg per day every 4-7 days; max 20 mg per day; shake bottle prior to administration

Oral susp: 2.5 mg/ml (464 ml)

**Evekeo** <3 years: not recommended;  $\geq$ 3-5 years: initially 2.5 mg once <u>or</u> twice daily at the same time(s) each day; may increase by 2.5 mg/day at weekly intervals; max 40 mg/day; >5 years: initially 5 mg once <u>or</u> twice daily at the same time(s) each day; may increase by 5 mg/day at weekly intervals; max 40 mg/day *Tab*: 5, 10 mg

dextroamphetamine sulfate (C)(II)(G) < 3 years: not recommended; ≥3-5 years: 2.5 mg daily; may increase by 2.5 mg daily at weekly intervals if needed; >5-12 years: initially 5 mg daily or bid; may increase by 5 mg/day at weekly intervals; usual max 40 mg/day; >12 years: initially 10 mg daily; may increase by 10 mg/day at weekly intervals; max 40 mg/day; may switch to daily dose with sust-rel spansules when titrated

**Dexedrine** *Tab*: 5\*mg (tartrazine)

Dexedrine Spansule Cap: 5, 10, 15 mg ext-rel

Dextrostat Tab: 5, 10 mg (tartrazine)

dextroamphetaminesaccharate/dextroamphetaminesulfate/amphetamineaspartate/ amphetamine sulfate (C)(II)(G)

Adderall <6 years: not indicated; ≥6-12 years: initially 5 mg daily; may increase by 5 mg/day at weekly intervals; >12 years: initially 10 mg daily; may increase weekly by 10 mg/day; usual max 60 mg/day in 2-3 divided doses; first dose on awakening; then q 4-6 hours prn

Tab: 5\*\*, 7.5\*\*, 10\*\*, 12.5\*\*, 15\*\*mg, 3.75 mg, 20\*\*, 30\*\*mg

Adderall XR <6 years: not recommended; 6-12 years: initially 10 mg daily in the AM; may increase by 10 mg/day at weekly intervals; max 30 mg/day; 13-17 years: 10-20 mg by mouth daily in the AM; may increase by 10 mg/day at weekly intervals; max 40 mg/day; >12 years: initially 20 mg by mouth once daily in AM; may increase by 10 mg/day at weekly intervals; max: 60 mg/day; do not chew; may sprinkle on applesauce

Cap: 5, 10, 15, 20, 25, 30 mg ext-rel

► dexmethylphenidate (C)(II)(G)

Focalin <6 years: not established; ≥6 years: initially 2.5 mg bid; allow at least 4 hours between doses; may increase at 1 week intervals; max 20 mg/day

*Tab*: 2.5, 5, 10\*mg (dye-free)

Focalin ER <6 years: not established; ≥6 years: initially 5 mg weekly; usual dose 10-30 mg/day

Cap: 15, 30 mg ext-rel

Focalin XR <6 years: not established; ≥6 years: initially 5 mg weekly; usual dose 10-30 mg/day

Cap: 5, 10, 15, 20, 25, 30, 35, 40 mg ext-rel

▶ lisdexamfetamine dimesylate (C)(II) <6 years: not recommended; ≥6 years: 30 mg once daily in the AM; may increase by 10-20 mg/day at weekly intervals; max 70 mg/day</p>

Vyvanse Cap: 20, 30, 40, 50, 60, 70 mg

Comment: May dissolve Vyvanse capsule contents in water; take immediately.

methylphenidate (regular-acting) (C)(II)(G)

Methylin, Methylin Chewable, Methylin Oral Solution <6 years: not recommended; 6-12 years: initially 5 mg bid ac (breakfast and lunch); may increase 5-10 mg/day at weekly intervals; max 60 mg/day; >12 years: usual dose 20-30 mg/day in 2-3 divided doses 30-45 minutes before a meal; max 60 mg/day

Tab: 5, 10\*, 20\*mg; Chew tab: 2.5, 5, 10 mg; (grape) (phenylalanine); Óral soln: 5, 10 mg/5 ml (grape)

Ritalin <6 years: not recommended; ≥6 years: initially 5 mg bid ac (breakfast and lunch); may increase by 5-10 mg at weekly intervals as needed; max 60 mg/day; 10-60 mg/day in 2-3 divided doses 30-45 minutes ac; max 60 mg/day

Tab: 5, 10\*, 20\*mg

### methylphenidate (long-acting) (C)(II)

Concerta <6 years: not recommended; ≥6-12 years: initially 18 mg daily; max 54 mg/day; >12-17 years: initially 18 mg daily; max 72 mg/day or 2 mg/kg, whichever is less; >17 years: initially 18 mg q AM; may increase in 18 mg increments as needed; max 54 mg/day; do not crush or chew

Tab: 18, 27, 36, 54 mg sust-rel

Metadate CD (G) <6 years: not recommended; ≥6 years: initially 20 mg daily; may gradually increase by 20 mg/day at weekly intervals as needed; max 60 mg/day; do not crush or chew

Cap: 10, 20, 30, 40, 50, 60 mg immed- and ext-rel beads

Metadate ER <6 years: not recommended;  $\geq$ 6-<12 years: use in place of regular-acting *methylphenidate* when the 8-hour dose of Metadate-ER corresponds to the titrated 8-hour dose of regular-acting *methylphenidate*;  $\geq$ 12 years: 1 tab daily in the AM; do not crush or chew

Tab: 10, 20 mg ext-rel (dye-free)

QuilliChew ER <6 years: not recommended; ≥6 years: initially 1 x 10 mg chew tab once daily in the AM; may gradually increase by 20 mg/day at weekly intervals as needed; max 60 mg/day

Chew tab: 20\*, 30\*, 40 mg ext-rel

Quillivant XR <6 years: not recommended; ≥6 years: initially 20 mg once daily in the AM, with or without food; may be titrated in increments of 10-20 mg/day at weekly intervals; daily doses above 60 mg have not been studied and are not recommended; shake the bottle vigorously for at least 10 seconds to ensure that the correct dose is administered

Bottle: 5 mg/ml, 25 mg/5 ml pwdr for reconstitution; 300 mg (60 ml), 600 mg (120 ml), 750 mg (150 ml), 900 mg (180 ml)

Comment: Quillivant XR must be reconstituted by a pharmacist, not by the patient or caregiver.

Ritalin LA (G) 1 cap daily in the AM; <6 years: not recommended; ≥6 years: use in place of regular-acting *methylphenidate* when the 8-hour dose of Ritalin LA corresponds to the titrated 8-hour dose of regular-acting *methylphenidate*; max 60 mg/day

Cap: 10, 20, 30, 40 mg ext-rel (immed- and ext-rel beads)

Ritalin SR 1 cap daily in the AM; <6 years: not recommended; ≥6 years: use in place of regular-acting *methylphenidate* when the 8-hour dose of Ritalin SR corresponds to the titrated 8-hour dose of regular-acting *methylphenidate*; max 60 mg/day

Tab: 20 mg sust-rel (dye-free)

methylphenidate (transdermal patch) (C)(II)(G) <6 years: not recommended;
 ≥6-17 years: initially 10 mg patch applied to hip 2 hours before desired effect daily
 in the AM; may increase by 5-10 mg at weekly intervals; max 60 mg/day; not
 applicable >17 years

Daytrana Transdermal patch: 10, 15, 20, 30 mg

pemoline (B)(IV) <6 years: not recommended; ≥6 years: 18.75-112.5 mg/day; usually start with 37.5 mg in AM; may increase 18.75 mg/day at weekly intervals; max 112.5 gm/day</p>

Cylert Tab: 18.75\*, 37.5\*, 75\*mg

Cylert Chewable Chew tab: 37.5\*mg

Comment: Check baseline serum ALT and monitor every 2 weeks thereafter.

### CENTRAL ALPHA2A-AGONIST

pauanfacine (B)(G) <6 years: not recommended; ≥6-17 years: initially 1 mg once daily; may increase by 1 mg/day at weekly intervals; usual max 4 mg/day; not applicable >17 years

**Intuniv** *Tab*: 1, 2, 3, 4 mg ext-rel

**Comment**: Take **Intuniv** with water, milk, <u>or</u> other liquid. Do not take with a high-fat meal. Withdraw gradually by 1 mg every 3-7 days.

### OTHER AGENTS

clonidine (C)

Catapres <12 years: not recommended; ≥12 years: initially 0.1 mg bid; usual range 0.2-0.6 mg/day in divided doses; max 2.4 mg/day

Tab: 0.1\*, 0.2\*, 0.3\*mg

Catapres-TTS <12 years: not recommended; ≥12 years: initially 0.1 mg patch weekly; increase after 1-2 weeks if needed; max 0.6 mg/day

Patch: 0.1, 0.2 mg/day (12/carton); 0.3 mg/day (4/carton)

**Kapvay (G)** <12 years: not recommended;  $\ge$ 12 years: initially 0.1 mg bid; usual range 0.2-0.6 mg/day in divided doses; max 2.4 mg/day

Tab: 0.1, 0.2 mg

Nexiclon XR <12 years: not recommended;  $\geq$ 12 years: initially 0.18 mg (2 ml) suspension or 0.17 mg tab once daily; usual max 0.52 mg (6 ml suspension) once daily

Tab: 0.17, 0.26 mg ext-rel; Oral susp: 0.09 mg/ml ext-rel (4 oz)

### AMINOKETONES (FOR THE TREATMENT OF ADHD)

**▶** bupropion HCl (B)(G)

Wellbutrin <18 years: not recommended; ≥18 years: initially 100 mg bid for at least 3 days; may increase to 375 or 400 mg/day after several weeks; then after at least 3 more days, 450 mg in 4 divided doses; max 450 mg/day, 150 mg/single dose

Tab: 75, 100 mg

Wellbutrin SR <12 years: not recommended;  $\geq$ 12 years: initially 150 mg in AM for at least 3 days; may increase to 150 mg bid if well tolerated; usual dose 300 mg/day; max 400 mg/day

Tab: 100, 150 mg sust-rel

Wellbutrin XL <12 years: not recommended; ≥12 years: initially 150 mg in AM for at least 3 days; increase to 150 mg bid if well tolerated; usual dose 300 mg/day; max 400 mg/day

Tab: 150, 300 mg sust-rel



## **BACTERIAL ENDOCARDITIS: PROPHYLAXIS**

Comment: Bacterial endocarditis prophylaxis is appropriate for persons with a history of previous infective endocarditis, persons with a prosthetic cardiac valve or prosthetic material used for valve repair, cardiac transplant patients who develop cardiac valvulopathy, congenital heart disease (CHD), unrepaired cyanotic CHD including palliative shunts and conduits, completely repaired congenital heart defect(s) with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure, repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which may inhibit endothelialization), or any other condition deemed to place a patient at high risk.

### DENTAL, ORAL, RESPIRATORY TRACT, OR ESOPHAGEAL PROCEDURES

amoxicillin (B)(G) 50 mg/kg as a single dose or 50 mg/kg (max 3 gm) 1 hour before procedure and (max 1.5 gm) 25 mg/kg 6 hours later; see page 543 for dose by weight table ≥40 kg: 2 gm PO 30-60 minutes before procedure as a single dose or 3 gm 1 hour before procedure and 1.5 gm 6 hours later

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

ampicillin (B)(G) <12 years: 50 mg/kg PO/IM/IV 30-60 minutes before procedure; see page 547 for oral dose by weight table; ≥12 years: 2 gm PO/IM/IV 30-60 minutes before procedure
</p>

Omnipen, Principen Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (100, 150, 200 ml) (fruit)

Unasyn Vial: 1.5, 3 g

azithromycin (B) <12 years: 15 mg/kg 30-60 minutes before procedure; max 500 mg; see page 548 for dose by weight table; ≥12 years: 500 mg 30-60 minutes before procedure</p>

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry)

cefazolin (B) <12 years: 25 mg/kg IM/IV 30-60 minutes before procedure; ≥12 years: 1 gm IM/IV 30-60 minutes before procedure
</p>

Ancef Vial: 250, 500 mg; 1, 5 g

Kefzol Vial: 500 mg; 1 g

ceftriaxone (B)(G) <12 years: 50 mg/kg IM/IV as a single dose 30-60 minutes before procedure; ≥12 years: 1 gm IM/IV as a single dose 30-60 minutes before procedure Rocephin Vial: 250, 500 mg; 1, 2 g

cephalexin (B)(G) <12 years: 50 mg/kg as a single dose 30-60 minutes before procedure; see page 557 for dose by weight table; ≥12 years: 2 gm as a single dose 30-60 minutes before procedure</p>

**Keflex** *Cap*: 250, 333, 500, 750 mg; *Oral susp*: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

clarithromycin (C)(G) <12 years: 15 mg/kg as a single dose 30-60 minutes before procedure; see page 558 for dose by weight table; ≥12 years: 500 mg or 500 mg extrel as a single dose 30-60 minutes before procedure
</p>

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

clindamycin (B)(G) <12 years: 20 mg/kg (max 300 mg) 1 hour before procedure and 10 mg/kg (max 150 mg) 6 hours later; take with a full glass of water; see page 559 for dose by weight table; ≥12 years: 600 mg PO as a one time single dose or 300 mg 30-60 minutes before procedure and 150 mg 6 hours later; take with a full glass of water</p>

Cleocin Cap: 75 (tartrazine), 150 (tartrazine), 300 mg

Cleocin Pediatric Granules Oral susp: 75 mg/ml (100 ml) (cherry)

erythromycin estolate (B)(G) <12 years: 20 mg/kg 1 hour before procedure; then 10 mg/kg 6 hours later; see page 562 for dose by weight table; ≥12 years: 1 gm 1 hour before procedure; then 500 mg 6 hours later</p>

Ilosone Pulvule: 250 mg; Tab: 500 mg; Liq: 125, 250 mg/5 ml (100 ml)

Penicillin V potassium (B)(G) <12 years: <60 lb: 1 gm 1 hour before procedure; then 500 mg 6 hours later or 1 gm 1 hour before procedure; then 500 mg q 6 hours x 8 doses; see page 572 for dose by weight table; ≥12 years: 2 gm 1 hour before procedure; then 1 gm 6 hours later or 2 gm 1 hour before procedure; then 1 gm q 6 hours x 8 doses</p>

Pen-VK Tab: 250, 500 mg;  $Oral \ soln$ : 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)



## BACTERIAL VAGINOSIS (BV; *GARDNERELLA VAGINALIS*)

### PROPHYLAXIS AND RESTORATION OF VAGINAL ACIDITY

acetic acid/oxyquinolone (C) <12 years: not recommended; ≥12 years: one full applicator intravaginally bid for up to 30 days</p>

Relagard *Gel: acet acid* 0.9%/oxyq 0.025% (50 gm tube w. applicator)

Comment: The following treatment regimens for *bacterial vaginosis* are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms. BV is associated with adverse pregnancy outcomes, including premature rupture of the membranes, preterm labor, preterm birth, intra-amniotic infection, and postpartum endometritis. Therefore, treatment is recommended for all pregnant females with symptoms or positive screen.

### RECOMMENDED REGIMENS

### Reaimen 1

metronidazole 500 mg bid x 7 days

### Regimen 2

➤ metronidazole gel 0.75% one full applicatorful (5 gm) once daily x 5 days

### Regimen 3

clindamycin cream 2% one full applicatorful (5 gm) intravaginally once daily at bedtime x 5 days

### **CDC ALTERNATE REGIMENS**

### Regimen 1

tinidazole 2 gm once daily x 2 days

### Regimen 2

tinidazole 1 gm once daily x 5 days

### Regimen 3

> clindamycin 300 mg bid x 7 days

### Regimen 4

clindamycin ovules 100 mg intravaginally once daily at bedtime x 3 days

### **Drug Brands and Dose Forms**

► clindamycin (B)

Cleocin (G) Cap: 75 (tartrazine), 150 (tartrazine), 300 mg

Cleocin Pediatric Granules (G) Oral susp: 75 mg/5 ml (100 ml) (cherry)

Cleocin Vaginal Cream Vag crm: 2% (21, 40 gm tubes w. applicator) Cleocin Vaginal Ovules Vag supp: 100 mg

metronidazole (not for use in 1st; B in 2nd, 3rd)

Flagyl Tab: 250\*, 500\*mg

Flagyl 375 Cap: 375 mg Flagyl ER Tab: 750 mg ext-rel

MetroGel-Vaginal, Vandazole Vag gel: 0.75% (70 gm w. applicator)

(parabens)

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

inidazole (not for use in 1st; B in 2nd, 3rd)

Tindamax Tab: 250\*, 500\*mg

## BELL'S PALSY

Prednisone (C)(G) <18 years: see page 498 for oral corticosteroid options; ≥18 years: 80 mg once daily x 3 days; then 60 mg daily x 3 days; then 40 mg daily x 3 days; then 20 mg x 1 dose; then discontinue</p>

Deltasone Tab: 2.5\*, 5\*, 10\*, 20\*, 50\*mg

## BILE ACID DEFICIENCY

### **BILE ACID**

wrsodiol (B) <12 years: not recommended; ≥12 years: Dissolution of radiolucent non-calcified gallstones <20 mm diameter: 8-10 mg/kg/day in 2-3 divided doses; Prevention: 13-15 mg/kg/day in 4 divided doses

Actigall Cap: 300 mg

Comment: *ursodiol* decreases the amount of cholesterol produced by the liver and absorbed by the intestines. It helps break down cholesterol that has formed into stones in the gallbladder. *ursodiol* increases bile flow in patients with primary biliary cirrhosis. It is used to treat small gallstones in people who cannot have cholecystectomy surgery and to prevent gallstones in overweight patients undergoing rapid weight loss. *ursodiol* is not used for treating gallstones that are calcified.

## **BINGE EATING DISORDER**

### CENTRAL NERVOUS SYSTEM (CNS) STIMULANT

▶ lisdexamfetamine dimesylate (C)(II) <18 years: not established; ≥18 years: swallow whole or may open and mix/dissolve contents of cap in yogurt, water, orange juice and take immediately; 30 mg once daily in the AM; may adjust in increments of 20 mg at weekly intervals; target dose 50-70 mg/day; max 70 mg/day; GFR 15-<30 mL/min: max 50 mg/day; GFR <15 mL/min, ESRD: max 30 mg/day</p>

Vyvanse Cap: 10, 20, 30, 40, 50, 60 70 mg

Comment: Vyvanse is not approved or recommended for weight loss treatment of obesity.

# BIPOLAR I DISORDER: DEPRESSION

Comment: The cornerstone of treatment for bipolar I disorder: Depression is mood stabilizers (*lithium* and *valproate*). Common adjunctive agents include antiepileptics, antipsychotics, and combination agents. Mounting evidence suggests that antidepressants are not effective in the treatment of bipolar depression. A major study funded by the National Institute of Mental Health (NIMH) found that adding an antidepressant to a mood stabilizer was no more effective in treating bipolar I depression than using a mood stabilizer alone. Another NIMH study found that antidepressants work no better than placebo. If antidepressants are used

at all, they should be combined with a mood stabilizer such as *lithium* or *valproic acid*. Taking an antidepressant without a mood stabilizer is likely to trigger a manic episode. Antidepressants can increase mood cycling. Many experts believe that over time, antidepressant use in people with bipolar disorder has a mood destabilizing effect, increasing the frequency of manic and depressive episodes. Other drugs and conditions that can mimic bipolar I disorder include thyroid disorders, corticosteroids, adrenal disorders (e.g., Addison's disease, Cushing's syndrome), antianxiety drugs, vitamin B<sub>12</sub> deficiency, and neurological disorders (e.g., epilepsy, multiple sclerosis).

### MOOD STABILIZERS

### Lithium Salts Mood Stabilizer

▶ lithium carbonate (D)(G) <12 years: not recommended; ≥12 years: swallow whole; Usual maintenance: 900-1200 mg/day in 2-3 divided doses Lithobid Tab: 300 mg slow-rel

Comment: Toxic and therapeutic levels of lithium are close. Draw blood for serum levels 8-12 hours after previous dose. Signs and symptoms of *lithium* toxicity can occur below 2 mEq/L and include blurred vision, tinnitus, weakness, dizziness, nausea, abdominal pains, vomiting, diarrhea to (severe) hand tremors, ataxia, muscle twitches, nystagmus, seizures, slurred speech, decreased level of consciousness, coma, death. Other potential adverse reactions may include dry mouth, metallic taste, polydipsia, polyuria, arrhythmias, renal toxicity, hypotension, lethargy, pseudotumor cerebri, extrapyramidal symptoms.

### Valproate Mood Stabilizer

divalproex sodium (D)(G) <12 years: not recommended; ≥12 years: take once daily; swallow ext-rel form whole; initially 25 mg/kg/day in divided doses; max 60 mg/kg/day
</p>

**Depakene** Cap: 250 mg; Syr: 250 mg/5 ml (16 oz)

Depakote Tab: 125, 250 mg

Depakote ER Tab: 250, 500 mg ext-rel

Depakote Sprinkle Cap: 125 mg

### ANTIEPILEPTICS

Exarbamazepine (D) <12 years: not recommended; ≥12 years: ext-rel oral forms should be swallowed whole; may open caps and sprinkle on applesauce (do not crush or chew beads); initially 400 mg/day in 2 divided doses; adjust in increments of 200 mg/day; max 1.6 gm/day. Elderly: reduce initial dose and titrate slowly; oral doses are preferred; IV administration is recommended when the patient is unable to swallow an oral form (see Carnexiv)

Carbatrol (G) Cap: 200, 300 mg ext-rel Carnexiv Vial: 10 mg/ml (20 ml)

Comment: The total daily dose of Carnexiv is 70% of the total daily oral *carbamazepine* dose (see mfr pkg insert for dosage conversion table). The total daily dose should be equally divided into four 30-minute infusions, separated by 6 hours. Must be diluted prior to administration. Patients should be switched back to oral *carbamazepine* at their previous total daily oral dose and frequency of administration as soon as clinically appropriate. The use of Carnexiv for more than 7 consecutive days has not been studied.

Equetro (G) Cap: 100, 200, 300 mg ext-rel

Tegretol Tab: 200\*mg; Chew tab: 100\*mg; Oral susp: 100 mg/5 ml (450 ml; citrus-vanilla)

Tegretol XR (G) Tab: 100, 200, 400 mg ext-rel

Comment: carbamazepine is indicated in mixed episodes in bipolar I disorder.

Iamotrigine (C)(G) <12 years: not recommended; ≥12 years: Not taking an enzyme-inducing antiepileptic drug (EIAED) (e.g., phenytoin, carbamazepine, phenobarbital, primidone, valproic acid): 25 mg once daily x 2 weeks; then 50 mg once daily x 2 weeks; then 100 mg once daily x 2 weeks; then target dose 200 mg once daily; Concomitant valproic acid: 25 mg every other day x 2 weeks; then 25 mg once daily x 2 weeks; then 50 mg once daily x 1 week; then target dose 100 mg once daily; Concomitant EIAED, not valproic acid: 50 mg once daily x 2 weeks; then 100 mg daily in divided doses; then increase weekly by 100 mg in divided doses to target dose 400 mg/day in divided doses daily

Lamictal Tab: 25\*, 100\*, 150\*, 200\*mg

Lamictal Chewable Dispersible Tab Chew tab: 2, 5, 25, 50 mg (black current)

Lamictal ODT ODT: 25, 50, 100, 200 mg

Lamictal XR Tab: 25, 50, 100, 200 mg ext-rel

Comment: *lamotrigine* is indicated for maintenance treatment of bipolar I disorder. See mfr pkg insert for drug interactions, interactions with contraceptives and hormone replacement therapy, and discontinuation protocol

### ANTIPSYCHOTICS

Comment: Common side effects of antipsychotic drugs include drowsiness, weight gain, sexual dysfunction, dry mouth, constipation, blurred vision. Neuroleptic Malignant Syndrome (NMS) and Tardive Dyskinesia (TD) are adverse side effects (ASEs) most often associated with the older antipsychotic drugs. Risk is decreased with the newer "atypical" antipsychotic drugs. However, these syndromes can develop, although much less commonly, after relatively brief treatment periods at low doses. Given these considerations, antipsychotic drugs should be prescribed in a manner that is most likely to minimize the occurrence. NMS, a potentially fatal symptom complex, is characterized by hyperpyrexia, muscle rigidity, altered mental status and evidence of autonomic instability (irregular pulse or blood pressure, tachycardia, diaphoresis, and cardiac dysrhythmia). Additional signs may include elevated creatine phosphokinase (CPK), myoglobinuria (rhabdomyolysis), and acute renal failure (ARF). TD is a syndrome consisting of potentially irreversible, involuntary, dyskinetic movements that can develop in patients with antipsychotic drugs. Characteristics include repetitive involuntary movements, usually of the jaw, lips and tongue, such as grimacing, sticking out the tongue and smacking the lips. Some affected people also experience involuntary movement of the extremities or difficulty breathing. The syndrome may remit, partially or completely, if antipsychotic treatment is withdrawn. If signs and symptoms of NMS and/or TD appear in a patient, management should include immediate discontinuation of antipsychotic drugs and other drugs not essential to concurrent therapy, intensive symptomatic treatment, medical monitoring, and treatment of any concomitant serious medical problems. The risk of developing NMS and/or TD, and the likelihood that either syndrome will become irreversible, is believed to increase as the duration of treatment and the total cumulative dose of antipsychotic drugs administered to the patient increase. The first and only FDAapproved treatment for TD is *valbenazine* (Ingrezza) (see page 395)

aripiprazole (C)(G) <10 years: not recommended; ≥10-17 years: initially 2 mg/day in a single dose for 2 days; then increase to 5 mg/day in a single dose for 2 days; then increase to target dose of 10 mg/day in a single dose; may increase by 5 mg/day at weekly intervals as needed to max 30 mg/day; >17 years: initially 15 mg once daily; may increase to max 30 mg/day

Abilify Tab: 2, 5, 10, 15, 20, 30 mg

Abilify Discmelt Tab: 15 mg orally-disint (vanilla) (phenylalanine)

**Abilify Maintena** *Vial:* 300, 400 mg ext-rel pwdr for IM injection after reconstitution; 300, 400 mg single-dose prefilled dual-chamber syringes w. supplies

Comment: Abilify is indicated for acute and maintenance treatment of mixed episodes in bipolar I disorder, as monotherapy or as adjunct to *lithium* or *valproic acid*.

➤ asenapine (C) <10 years: not established; 10-17 years: Monotherapy: initially 2.5 mg bid; may increase to 5 mg bid after 3 days; then to 10 mg bid after 3 more days; max 10 mg bid: >17 years: Monotherapy: 10 mg bid; Adjunctive therapy: 5 mg bid; may increase to max 10 mg bid; allow SL tab to dissolve on tongue; do not split, crush, chew, or swallow; do not eat or drink for 10 minutes after administration

Saphris SL tab: 2, 5, 5, 10 mg (black cherry)

Comment: Saphris is indicated for acute treatment of manic or mixed episodes in bipolar I disorder, as monotherapy or as adjunct to *lithium* or *valproic acid*.

cariprazine (NE) <12 years: not established: ≥12 years: administer dose once daily; initially 1.5 mg once daily; Day 2: increase to 3 mg; may further increase by 1.5-3 mg increments on subsequent days based on patient response and tolerability; usual range 3-6 mg once daily; max 6 mg/day; Initiating a strong CYP3A4 inhibitor while taking Vraylar: decrease Vraylar dose by half; Initiating Vraylar while taking a strong CYP3A4 inhibitor: Day 1: 1.5 mg; Day 2: skip dose; Day 3 and subsequent days: 1.5 mg once daily; increase by 1.5-3 mg once daily; max 6 mg/day
</p>

### Vraylar

Cap: 1.5, 3, 4.5, 6 mg; 7-count (1 x 1.5 mg, 6 x 3 mg) mixed blister pck Comment: Vraylar is an atypical antipsychotic with partial agonist activity at D2 and 5-HT1A receptors and antagonist activity at 5-HT2A receptors. It is indicated for acute treatment of mixed episodes in bipolar I disorder. There is a Vraylar pregnancy exposure registry that monitors pregnancy outcomes in females exposed to Vraylar during pregnancy. For more information, contact the National Pregnancy Registry for Atypical Antipsychotics at 866-961-2388 or visit https://womensmentalhealth.org/clinical-and-research-programs/pregnancyregistry.

▶ lurasidone (B) <18 years: not established: ≥18 years: initially 20 mg once daily; usual range 20 to max 120 mg/day; take with food; CrCl <50 mL/min, moderate hepatic impairment (Child Pugh 7-9): max 80 mg/day; Child Pugh 10-15): max 40 mg/day</p>

Latuda Tab: 20, 40, 60, 80, 120 mg

Comment: Latuda is indicated for major depressive episodes associated with bipolar I disorder as monotherapy and as adjunctive therapy with *lithium* or *valproic* acid. Contraindicated with concomitant strong CYP3A4 inhibitors (e.g., *ketoconazole*, *voriconazole*, *clarithromycin*, *ritonavir*) and inducers (e.g., *phenytoin*, *carbamazepine*, *rifampin*, *St. John's wort*); see mfr pkg insert if patient taking moderate CYP3A4 inhibitors (e.g., *diltiazem*, *atazanavir*, *erythromycin*, *fluconazole*, *verapamil*). The efficacy of LATUDA in the treatment of mania associated with bipolar disorder has not been established.

### **▶** quetiapine fumarate (C)(G)

SeroQUEL <10 years: not recommended; ≥10-17 years: initially 25 mg bid, titrate q 2nd or 3rd day in increments of 25-50 mg bid-tid; max 600 mg/day in 2-3 divided doses: >17 years: initially 25 mg bid, titrate q 2nd or 3rd day in increments of 25-50 mg bid-tid; usual maintenance 400-600 mg/day in 2-3 divided doses

Tab: 25, 50, 100, 200, 300, 400 mg

SeroQUEL XR <18 years: not recommended; ≥18 years: swallow whole; administer once daily in the PM; *Day 1*: 50 mg; *Day 2*: 100 mg; *Day 3*: 200 mg; *Day 4*: 300 mg; usual range 400-600 mg/day

Tab: 50, 150, 200, 300, 400 mg ext-rel

▶ risperidone (C) Tab: initially 2-3 mg once daily; may adjust at 24 hour intervals by 1 mg/day; usual range 1-6 mg/day; max 6 mg/day; Oral soln: do not take with cola or tea; M-tab: dissolve on tongue with or without fluid; Consta: administer deep IM in the deltoid or gluteal; give with oral respiridone or other antipsychotic x 3 weeks; then stop oral form; 25 mg IM every 2 weeks; max 50 mg every 2 weeks

Risperdal <5 years: not established; 5-10 years: initially 0.5 mg once daily at the same time each day adjust at 24 hour intervals by 0.5-1 mg to target dose 2.5 mg/day; usual range 1-6 mg/day; max 6 mg/day; >10 years: See generic risperidone above for dosing ≥10 years

*Tab*: 0.25, 0.5, 1, 2, 3, 4 mg; *Oral soln*: 1 mg/ml (100 ml)

Risperdal Consta <18 years: not established; See generic risperidone above for dosing ≥18 years

*Vial*: 12.5, 25, 37.5, 50 mg pwdr for long-acting IM inj after reconstitution, single use w. diluent and supplies

**Risperdal M-Tab** <10 years: not established; ≥10 years: *See generic risperidone* above for dosing ≥10 years

*Tab*: 0.5, 1, 2, 3, 4 mg orally-disint (phenylalanine)

Comment: Risperdal tabs, oral solution, and M-tabs are indicated for the short-term monotherapy of acute mania or mixed episodes associated with bipolar I disorder, or in combination with *lithium* or *valproic acid* in patients >12 years-of-age. Risperdol Consta is indicated as monotherapy or adjunctive therapy to *lithium* or *valproic acid* for the maintenance treatment mania and mixed episodes in bipolar I disorder.

ziprasidone (C)(G) <12 years: not recommended; ≥12 years: initially 40 mg bid; on day 2, may increase to 60-80 mg bid
</p>

Geodon Cap: 20, 40, 60, 80 mg

Comment: Geodon is indicated for acute and maintenance treatment of mixed episodes in bipolar I disorder, as monotherapy or as adjunct to *lithium* or *valproic acid*.

### COMBINATION AGENTS

### Thienobenzodiazepine/Selective Serotonin Reuptake Inhibitor Combinations

► fluoxetine (C)(G)

Prozac <12 years: not recommended; ≥12 years: initially olanzapine 5 mg plus fluoxetine 20 mg daily in the PM; range olanzapine 5-12.5 mg plus fluoxetine 20-50 mg; risk of hypotension, or hepatic impairment, slow metabolizers, or sensitive to olanzapine, initially olanzapine 2.5-5 mg plus fluoxetine 20 mg daily in the PM; fluoxetine doses >20 mg/day may be divided into AM and noon doses

Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint)

Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxetine therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after the last 20 mg fluoxetine dose

▶ olanzapine/fluoxetine (C) <10 years: not recommended; 10-17 years: initially 1 x 3/25 cap once daily in the PM; max 1 x 12/50 cap once daily in the PM; >17 years: initially 1 x 6/25 cap once daily in the PM; titrate; max 1 x 12/50 cap once daily in the PM

### Symbyax

Cap: Symbyax 3/25: olan 3 mg/fluo 25 mg Symbyax 6/25: olan 6 mg/fluo 25 mg Symbyax 6/50: olan 6 mg/fluo 50 mg Symbyax 12/25: olan 12 mg/fluo 25 mg Symbyax 12/50: olan 12 mg/fluo 50 mg

Comment: Symbyax is indicated for the treatment of depressive episodes associated with bipolar I disorder and treatment-resistant depression (TRD).

## **BIPOLAR I DISORDER: MANIA**

Comment: The cornerstone of treatment for bipolar I disorder: Mania is mood stabilizers (*lithium* and *valproic acid*). Common adjunctive agents include antiepileptics and antipsychotics. Drugs and conditions that can mimic bipolar I disorder include thyroid disorders, corticosteroids, antidepressants, adrenal disorders (e.g., Addison's disease, Cushing's syndrome), antianxiety drugs, drugs for Parkinson's disease, vitamin B<sub>12</sub> deficiency, neurological disorders (e.g., epilepsy, multiple sclerosis).

### MOOD STABILIZERS

### Lithium Salts Mood Stabilizer

▶ lithium carbonate (D)(G) <12 years: not recommended; ≥12 years: swallow whole; Acute mania: 1800 mg/day in 2-3 divided doses; Usual maintenance: 900-1200 mg/day in 2-3 divided doses

Lithobid Tab: 300 mg slow-rel

Comment: Signs and symptoms of *lithium* toxicity can occur below 2 mEq/L and include blurred vision, tinnitus, weakness, dizziness, nausea, abdominal pains, vomiting, diarrhea to (severe) hand tremors, ataxia, muscle twitches, nystagmus, seizures, slurred speech, decreased level of consciousness, coma, death.

### Valproate Mood Stabilizer

divalproex sodium (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg/kg/day in divided doses; max 60 mg/kg/day; initially use immed-rel form and titrate; take ext-rel form once daily and swallow whole
</p>

**Depakene** *Cap*: 250 mg; *Syr*: 250 mg/5 ml (16 oz)

Depakote Tab: 125, 250 mg

Depakote ER Tab: 250, 500 mg ext-rel

Depakote Sprinkle Cap: 125 mg

### **ANTIEPILEPTICS**

carbamazepine (D) <12 years: not recommended; ≥12 years: initially 400 mg/day in 2 divided doses; adjust in increments of 200 mg/day; max 1.6 gm/day; take oral dose once daily; swallowed whole; may open caps and sprinkle on applesauce (do not crush or chew beads); oral doses are preferred; IV administration is recommended when the patient is unable to swallow an oral form (see Carnexiv)</p>

Carbatrol (G) Cap: 200, 300 mg ext-rel Carnexiv Vial: 10 mg/ml (20 ml)

Comment: The total daily dose of Carnexiv is 70% of the total daily oral *carbamazepine* dose. See mfr pkg insert for dosage conversion table. The total daily dose should be equally divided into four 30-minute infusions, separated by 6 hours. Must be diluted prior to administration. Patients should be switched back to oral *carbamazepine* at their previous total daily oral dose and frequency of administration as soon as clinically appropriate. The use of Carnexiv for more than 7 consecutive days has not been studied.

Equetro (G) Cap: 100, 200, 300 mg ext-rel

Tegretol(G) Tab: 200\*mg; Chew tab: 100\*mg; Oral susp: 100 mg/5 ml (450 ml; citrus-vanilla)

Tegretol XR (G) Tab: 100, 200, 400 mg ext-rel

Comment: carbamazepine is indicated in mixed episodes in bipolar I disorder.

▶ lamotrigine (C)(G) <12 years: not recommended; ≥12 years: Not taking an enzyme-inducing antiepileptic drug (EIAED) (e.g., phenytoin, carbamazepine, phenobarbital, primidone, valproic acid): 25 mg once daily x 2 weeks; then 50 mg once daily x 2 weeks; then 100 mg once daily x 2 weeks; then target dose 200 mg once daily; Concomitant valproic acid: 25 mg every other day x 2 weeks; then 25 mg once daily x 2 weeks; then 50 mg once daily x 1 week; then target dose 100 mg once daily; Concomitant EIAED, not valproic acid: 50 mg once daily x 2 weeks; then 100 mg daily in divided doses; then increase weekly by 100 mg in divided doses to target dose 400 mg/day in divided doses daily</p>

Lamictal Tab: 25\*, 100\*, 150\*, 200\*mg

Lamictal Chewable Dispersible Tab Chew tab: 2, 5, 25, 50 mg (black current)

Lamictal ODT ODT: 25, 50, 100, 200 mg

Lamictal XR Tab: 25, 50, 100, 200 mg ext-rel

Comment: *lamotrigine* is indicated for maintenance treatment of bipolar I disorder. See mfr pkg insert for drug interactions, interactions with contraceptives and hormone replacement therapy, and discontinuation protocol

topiramate (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg daily in the PM; then 25 mg bid; then, 25 mg in the AM and 50 mg in the PM; then, 50 mg bid

Topamax *Tab*: 25, 50, 100, 200 mg Topamax Sprinkle Caps *Cap*: 15, 25 mg Trokendi XR *Cap*: 25, 50, 100, 200 mg ext-rel Quedexy XR *Cap*: 25, 50, 100, 150, 200 mg ext-rel

### **ANTIPSYCHOTICS**

Comment: Side effects of antipsychotics include drowsiness, weight gain, sexual dysfunction, dry mouth, constipation, blurred vision. Patients receiving an antipsychotic agent should be monitored closely for the following adverse side effects:

neuroleptic malignant syndrome, extrapyramidal reactions, tardive dyskinesia, blood dyscrasias, anticholinergic effects, drowsiness, hypotension, photo-sensitivity, retinopathy, and lowered seizure threshold. Use lower doses for elderly or debilitated patients. Prescriptions should be written for the smallest practical amount. Foods and beverages containing alcohol are contraindicated for patients receiving any psychotropic drug. Neuroleptic Malignant Syndrome (NMS) and Tardive Dyskinesia (TD) are adverse side effects (ASEs) most often associated with the older antipsychotic drugs. Risk is decreased with the newer "atypical" antipsychotic drugs. However, these syndromes can develop, although much less commonly, after relatively brief treatment periods at low doses. Given these considerations, antipsychotic drugs should be prescribed in a manner that is most likely to minimize the occurrence. NMS, a potentially fatal symptom complex, is characterized by hyperpyrexia, muscle rigidity, altered mental status and evidence of autonomic instability (irregular pulse or blood pressure, tachycardia, diaphoresis, and cardiac dysrhythmia). Additional signs may include elevated creatine phosphokinase (CPK), myoglobinuria (rhabdomyolysis), and acute renal failure (ARF). TD is a syndrome consisting of potentially irreversible, involuntary, dyskinetic movements that can develop in patients with antipsychotic drugs. Characteristics include repetitive involuntary movements, usually of the jaw, lips and tongue, such as grimacing, sticking out the tongue and smacking the lips. Some affected people also experience involuntary movement of the extremities or difficulty breathing. The syndrome may remit, partially or completely, if antipsychotic treatment is withdrawn. If signs and symptoms of NMS and/or TD appear in a patient, management should include immediate discontinuation of antipsychotic drugs and other drugs not essential to concurrent therapy, intensive symptomatic treatment, medical monitoring, and treatment of any concomitant serious medical problems. The risk of developing NMS and/or TD, and the likelihood that either syndrome will become irreversible, is believed to increase as the duration of treatment and the total cumulative dose of antipsychotic drugs administered to the patient increase. The first and only FDA-approved treatment for TD is valbenazine (Ingrezza) (see page 395).

aripiprazole (C)(G) <10 years: not recommended; ≥10-17 years: initially 2 mg/day in a single dose for 2 days; then increase to 5 mg/day in a single dose for 2 days; then increase to target dose of 10 mg/day in a single dose; may increase by 5 mg/day at weekly intervals as needed to max 30 mg/day; >17 years: initially 15 mg once daily; may increase to max 30 mg/day

Abilify Tab: 2, 5, 10, 15, 20, 30 mg

Abilify Discmelt *Tab*: 15 mg orally-disint (vanilla) (phenylalanine)
Abilify Maintena *Vial*: 300, 400 mg ext-rel pwdr for IM injection after reconstitution; 300, 400 mg single-dose prefilled dual-chamber syringes w. supplies
Comment: Abilify is indicated for acute and maintenance treatment of mixed episodes in bipolar I disorder, as monotherapy or as adjunct to *lithium* or *valproic acid*.

asenapine (C) <10 years: not established; 10-17 years: Monotherapy: initially 2.5 mg bid; may increase to 5 mg bid after 3 days; then to 10 mg bid after 3 more days; max 10 mg bid; >17 years: allow SL tab to dissolve on tongue; do not split, crush, chew, or swallow; do not eat or drink for 10 minutes after administration; Monotherapy: 10 mg bid; Adjunctive therapy: 5 mg bid; may increase to max 10 mg bid

Saphris *SL tab*: 2, 5, 5, 10 mg (black cherry)

Comment: Saphris is indicated for acute treatment of manic or mixed episodes in bipolar I disorder, as monotherapy or as adjunct to *lithium* or *valproic acid*.

cariprazine (NE) <12 years: not established: ≥12 years: administer dose once daily; initially 1.5 mg once daily; Day 2: increase to 3 mg; may further increase by 1.5-3 mg increments on subsequent days based on patient response and tolerability; usual range 3-6 mg once daily; max 6 mg/day; Initiating a strong CYP3A4 inhibitor while taking Vraylar: decrease Vraylar dose by half; Initiating Vraylar while taking a strong CYP3A4 inhibitor: Day 1: 1.5 mg; Day 2: skip dose; Day 3 and subsequent days: 1.5 mg once daily; increase by 1.5-3 mg once daily; max 6 mg/day
</p>

Vraylar Cap: 1.5, 3, 4.5, 6 mg; 7-count (1 x 1.5 mg, 6 x 3 mg) mixed blister pck Comment: Vraylar is an atypical antipsychotic with partial agonist activity at D2 and 5-HT1A receptors and antagonist activity at 5-HT2A receptors. It is indicated for acute treatment of mixed episodes in bipolar I disorder. There is a Vraylar pregnancy exposure registry that monitors pregnancy outcomes in females exposed to Vraylar during pregnancy. For more information, contact the National Pregnancy Registry for Atypical Antipsychotics at 866-961-2388 or visit https://womensmentalhealth.org/clinical-and-research-programs/pregnancyregistry. Safety and effectiveness in pediatric patients have not been established.

chlorpromazine (C)(G) ≥6 months-12 years: initially 0.25 mg/lb every 4-6 hours prn or 0.5 mg/lb rectally q 6-8 hours prn; >12 years: initially 10 mg tid-qid; may increase semi-weekly by 25-50 mg/day

Thorazine *Tab*: 10, 25, 50, 100, 200 mg; *Spansule*: 30, 75, 150 mg sust-rel; *Syr*: 10 mg/5 ml (4 oz) (orange custard); *Oral conc*: 30 mg/ml (4 oz); 100 mg/ml (2, 8 oz); *Supp*: 25, 100 mg

Comment: *chlorpromazine* is indicated for rapid control of severe psychotic symptoms.

### quetiapine fumarate (C)(G)

SeroQUEL <10 years: not recommended; ≥10-17 years: initially 25 mg bid, titrate q 2nd or 3rd day in increments of 25-50 mg bid-tid; max 600 mg/day in 2-3 divided doses: >17 years: initially 25 mg bid, titrate q 2nd or 3rd day in increments of 25-50 mg bid-tid; usual maintenance 400-600 mg/day in 2-3 divided doses

Tab: 25, 50, 100, 200, 300, 400 mg

SeroQUEL XR <18 years: not recommended; ≥18 years: swallow whole; administer once daily in the PM; *Day 1*: 50 mg; *Day 2*: 100 mg; *Day 3*: 200 mg; *Day 4*: 300 mg; usual range 400-600 mg/day

Tab: 50, 150, 200, 300, 400 mg ext-rel

▶ risperidone (C) Tab: initially 2-3 mg once daily; may adjust at 24 hour intervals by 1 mg/day; usual range 1-6 mg/day; max 6 mg/day; Oral soln: do not take with cola or tea; M-tab: dissolve on tongue with or without fluid; Consta: administer deep IM in the deltoid or gluteal; give with oral respiridone or other antipsychotic x 3 weeks; then stop oral form; 25 mg IM every 2 weeks; max 50 mg every 2 weeks

Risperdal <5 years: not established; 5-10 years: initially 0.5 mg once daily at the same time each day adjust at 24 hour intervals by 0.5-1 mg to target dose 2.5 mg/day; usual range 1-6 mg/day; max 6 mg/day; >10 years: See generic risperidone above for dosing  $\geq$  10 years

*Tab*: 0.25, 0.5, 1, 2, 3, 4 mg; *Oral soln*: 1 mg/ml (100 ml)

**Risperdal Consta** <18 years: not established; *See generic risperidone above for dosing*  $\geq$  18 years

*Vial*: 12.5, 25, 37.5, 50 mg pwdr for long-acting IM inj after reconstitution, single use w. diluent and supplies

**Risperdal M-Tab** <10 years: not established;  $\geq$ 10 years: *See generic risperidone* above for dosing  $\geq$  10 years

*Tab*: 0.5, 1, 2, 3, 4 mg orally-disint (phenylalanine)

Comment: Risperdal tabs, oral solution, and M-tabs are indicated for the short term monotherapy of acute mania or mixed episodes associated with bipolar I disorder, or in combination with *lithium* or *valproic acid* in patients >12 years-of-age. Risperdol Consta is indicated as monotherapy or adjunctive therapy to *lithium* or *valproic acid* for the maintenance treatment mania and mixed episodes in bipolar I disorder.

ziprasidone (C)(G) <12 years: not recommended; ≥12 years: initially 40 mg bid; on day 2, may increase to 60-80 mg bid
</p>

Geodon Cap: 20, 40, 60, 80 mg

Comment: Geodon is indicated for acute and maintenance treatment of mixed episodes in bipolar I disorder, as monotherapy or as adjunct to *lithium* or *valproic acid*.

# BITE: CAT

### **TETANUS PROPHYLAXIS**

► *tetanus toxoid* vaccine (C) 0.5 ml IM x 1 dose if previously immunized *Vial*: 5 Lf units/0.5 ml (0.5, 5 ml); *Prefilled syringe*: 5 Lf units/0.5 ml (0.5 ml) *see Tetanus page* 398 for patients not previously immunized

### **ANTI-INFECTIVES**

*→ amoxicillin/clavulanate* (B)(G)

**Augmentin** <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

Oral susp: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

*Tab*: 1000\*mg ext-rel

cefuroxime axetil (B)(G) <3 months: not recommended; 3 months-12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 556 for dose by weight table; ≥12 years: 500 mg bid x 10 days</p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti) 

Advycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses x 10 days; ≥8 years, >100 lb: 100 mg bid x 10 days; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Bite: Doa ● 51

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Dorvx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: doxycycline is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

penicillin V potassium (B)(G) <12 years: 25-75 mg/kg day divided q 6-8 hours x 3 days; see page 572 for dose by weight table; ≥12 years: 500 mg PO qid x 3 days Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml

(100, 150, 200 ml)



### BITE: DOG

### TETANUS PROPHYLAXIS

tetanus toxoid vaccine (C) 0.5 ml IM x 1 dose if previously immunized

Vial: 5 Lf units/0.5 ml (0.5, 5 ml)

Prefilled syringe: 5 Lf units/0.5 ml (0.5 ml)

see Tetanus page 398 for patients not previously immunized

### ANTI-INFECTIVES

*→* amoxicillin/clavulanate (B)(G)

Augmentin < 40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table; ≥40 kg: 500 mg tid or 875 mg bid x 10 days

Tab: 250, 500, 875 mg; Chew tab: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); Oral susp: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended; ≥3 months, <40 kg: 90 mg/ kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

Oral susp: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** < 16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10

Tab: 1000\*mg 8-16 mg/kg/day in 3-4 divided doses x 10 days; see page 545 for dose by weight table; administer with TMP-SMX; ≥12 years: 300 mg qid x 10 days; administer with fluoroquinolone

Cleocin (G) Cap: 75 (tartrazine), 150 (tartrazine), 300 mg

Cleocin Pediatric Granules (G) Oral susp: 75 mg/5 ml (100 ml)(cherry)

 $\triangleright$  doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses x 5-10 days; ≥8 years, >100 lb: 100 mg bid x 5-10 days; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox *Cap*: 50, 75, 100 mg Oracea *Cap*: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within 2 hours of taking another drug.

Penicillin V potassium (B)(G) <12 years: 50 mg/kg/day in 4 divided doses x 3 days; see page 572 for dose by weight table; ≥12 years: 500 mg PO qid x 3 days

 Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)
</p>

# BITE: HUMAN

### TETANUS PROPHYLAXIS

▶ tetanus toxoid vaccine (C) 0.5 ml IM x 1 dose if previously immunized Vial: 5 Lf units/0.5 ml (0.5, 5 ml)

Prefilled syringe: 5 Lf units/0.5 ml (0.5 ml)

see Tetanus page 398 for patients not previously immunized

### ANTI-INFECTIVES

**▶** amoxicillin/clavulanate (B)(G)

**Augmentin** <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

cefoxitin (B) <3 months: not recommended; ≥3 months: 80-160 mg/kg/day IM in 3-4 divided doses x 10 days; max 12 gm/day

Mefoxin Injectable Vial: 1, 2 g

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 10 days; max 1.5 gm/day
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

> erythromycin base (B)(G) <45 kg: 30-40 mg/kg/day in 4 divided doses x 10 days; >45 kg: 250 mg qid x 10 days

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 10 days; may double dose with severe infection; see page 563 for dose by weight table; max 100 mg/kg/day or 400 mg qid

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

► trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days

Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

### **BLEPHARITIS**

### **OPHTHALMIC AGENTS**

erythromycin ophthalmic ointment (B) apply 1/2 inch bid-qid x 14 days; then q HS x 10 days

Ilotycin Oint: 5 mg/g (1/2 oz)

▶ polymyxin/bacitracin ophthalmic ointment (C) apply 1/2 inch bid-qid x 14 days; then q HS

**Polysporin** *Oint: poly B* 10,000 U/*baci* 500 U (3.75 gm)

polymyxin B/bacitracin/neomycin ophthalmic ointment (C) apply 1/2 inch bid-qid x 14 days; then q HS

Neosporin Oint: poly B 10,000 U/baci 400 U/neo 3.5 mg/g (3.75 gm)

**▶** sodium sulfacetamide (C)

**Bleph-10 Ophthalmic Solution** <2 years: not recommended; 2-12 years: years: 1-2 drops q 2-3 hours during the day x 7-14 days; >12 years: 2 drops q 4 hours x 7-14 days

Ophth soln: 10% (2.5, 5, 15 ml) (benzalkonium chloride)

Bleph-10 Ophthalmic Ointment <2 years: not recommended;  $\geq$ 2 years: apply 1/2 inch qid and HS x 7-14 days

Ophth oint: 10% (3.5 gm) (phenylmercuric acetate)

### SYSTEMIC AGENTS

tetracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses x 7-10 days; see page 574 for dose by weight table; >8 years, >100 lb: 250 mg qid x 7-10 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.



## **BRONCHIOLITIS**

Inhaled Beta2-Agonists (Bronchodilators) see Asthma page 29 Oral Beta2-Agonists (Bronchodilators) see Asthma page 33 Inhaled Corticosteroids see Asthma page 29 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498



# BRONCHITIS: ACUTE/ACUTE EXACERBATION OF CHRONIC BRONCHITIS (AECB)

Comment: Antibiotics are seldom needed for treatment of acute bronchitis because the etiology is usually viral.

Inhaled Beta2-Agonists (Bronchodilators) see Asthma page 29 Oral Beta2-Agonists (Bronchodilators) see Asthma page 33

### ANTI-INFECTIVES FOR SECONDARY BACTERIAL INFECTION

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

**>** amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended; ≥3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table; ≥40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

*Tab*: 1000\*mg ext-rel

ampicillin (B) <12 years: not recommended for bronchitis in children; ≥12 years: 250-500 mg qid x 10 days

Omnipen, Principen Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (100, 150, 200 ml) (fruit)

azithromycin (B)(G) <12 years: not recommended for bronchitis in children; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg once daily x 3 days or 2 gm in a single dose
</p>

Zithromax *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml(15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak *Tab*: 6 x 250 mg tabs/pck Zmax *Oral susp*: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

cefaclor (B)(G) <16 years: not recommended; ≥16 years: 250-500 mg q 8 hours x 10 days; max 2 gm/day
</p>

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

*Tab*: 375, 500 mg ext-rel

cefadroxil (B) <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in 1-2 divided doses x 10 days</p>

**Duricef** *Tab*: 1 g; *Cap*: 500 mg; *Oral susp*: 250 mg/5 ml (100 ml); 500 mg/5 ml (75, 100 ml) (orange-pineapple)

cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; >12 years: 300 mg bid x 10 days or 600 mg daily x 10 days

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

cefditoren pivoxil (B) <12 years: not recommended; ≥12 years: 400 mg bid x 10 days
 Spectracef Tab: 200 mg
</p>

Comment: Spectracef is contraindicated with milk protein allergy or carnitine deficiency.

cefixime (B)(G) <6 months: not recommended; 6 months-12 years, <50 kg: 8 mg/kg/day in 1-2 divided doses x 10 days; see page 552 for dose by weight table; >12 years, >50 kg: 400 mg once daily x 10 days

Suprax Tab: 400 mg; Cap: 400 mg; Oral susp: 100, 200, 500 mg/5 ml (50, 75, 100 ml)(strawberry)

cefpodoxime proxetil (B) <2 months: not recommended; ≥2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 10 days; see page 553 for dose by weight table; >12 years: 200 mg bid x 10 days

cefprozil (B) <2 years: not recommended; 2-12 years: 15 mg/kg bid x 10 days; see page 554 for dose by weight table; >12 years: 250-500 mg bid or 500 mg daily x 10 days

Cefzil Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)

ceftibuten (B) <12 years: 9 mg/kg daily x 10 days; max 400 mg/day; see page 555 for dose by weight table; ≥12 years: 400 mg daily x 10 days</p>

Cedax Cap: 400 mg; Oral susp: 90 mg/5 ml (30, 60, 90, 120 ml); 180 mg/5 ml (30, 60, 120 ml) (cherry)

ceftriaxone (B)(G) <12 years: 50 mg/kg IM daily; continue 2 days after clinical stability; ≥12 years: 1-2 gm IM daily; continue 2 days after signs of infection have disappeared; max 4 gm/day

Rocephin Vial: 250, 500 mg; 1, 2 g

cefuroxime axetil (B)(G) <12 years: 15 mg/kg bid x 10 days; see page 556 for dose by weight table; ≥12 years: 250-500 mg bid x 10 days</p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page
 557 for dose by weight table; ≥12 years: 250-500 mg qid x 10 days
</p>

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

Example clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/kg bid x 7 days; see page 558 for dose by weight table; >12 years: 500 mg or 500 mg ext-rel once daily x 7 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

dirithromycin (C)(G) <12 years: not recommended; ≥12 years: 500 mg daily x 7 days
</p>

Dynabac Tab: 250 mg

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, >100 lb: 40-100 mg bid; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa *Tab*: 50, 75, 100, 150 mg ent-coat

Doryx *Tab*: 50, 75, 100, 150, 200 mg del-rel

Monodox *Cap:* 50, 75, 100 mg Oracea *Cap:* 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be

photo-sensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

► erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

Description > gemifloxacin (C) < 18 years: not recommended; ≥ 18 years: 320 mg once daily x 5-7 days

 d

Factive Tab: 320\*mg

Comment: *gemifloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

▶ levofloxacin (C) <18 years: not recommended; ≥18 years: Uncomplicated: 500 mg daily x 7 days; Complicated: 750 mg daily x 7 days</p>

Levaquin Tab: 250, 500, 750 mg

Comment: *levofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 7 days; see page 570 for dose by weight table; ≥12 years: 200-400 mg bid x 7 days</p>

Lorabid Pulvule: 200, 400 mg; Oral susp: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

moxifloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg daily x 5 days
</p>

Avelox *Tab*: 400 mg; IV soln: 400 mg/250 mg (latex-free, preservative-free) Comment: *moxifloxacin* is contraindicated <18 years-of-age and during pregnancy

and lactation. Risk of tendonitis <u>or</u> tendon rupture.

→ ofloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg bid x 10 days
Floxin Tab: 200, 300, 400 mg

**Comment:** *ofloxacin* is contraindicated <18 years-of-age and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

telithromycin (C) <18 years: not recommended; ≥18 years: 2 x 400 mg tabs in a single dose daily x 5 days
</p>

Ketek Tab: 400 mg

tetracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses x 7 days; see page 574 for dose by weight table; ≥8 years, >100 lb: 250-500 mg qid x 7 days

Achromycin V Cap: 250, 500 mg

**Sumycin** *Tab*: 250, 500 mg; *Cap*: 250, 500 mg; *Oral susp*: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.

► trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\* Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 davs

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

## **BULIMIA NERVOSA**

### SELECTIVE SEROTONIN REUPTAKE INHIBITOR (SSRI)

► fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10 mg/day; may increase after 1 week to 20 mg/day; range 20-60 mg/day; range for lower weight children, 20-30 mg/day; >17 years; initially 20 mg daily; may increase after 1 week; doses >20 mg/day should be divided into AM and noon doses; max 80 mg/day

Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint) Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxetine therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after the last 20 mg fluoxetine dose

Cap: 90 mg ent-coat del-rel pellets

## **BURN: MINOR**

> silver sulfadiazine (B)(G) <12 years: not established; ≥12 years: apply bid Silvadene Crm: 1% (20 gm tube; 20, 50, 85, 400, 1,000 gm jar)

Comment: silver sulfadiazine is contradicted in sulfa allergy, late pregnancy, within the first 2 months after birth, premature infants.

### TOPICAL/TRANSDERMAL ANESTHETICS

Comment: lidocaine gel, cream, lotion, or patch is not recommended <12 years-of-age and should not be applied to non-intact skin and

lidocaine burn gel (B)(G) lidocaine cream (B)(G)

LidaMantle Crm: 3% (1, 2 oz)

Lidoderm Crm: 3% (85 gm)

*▶ lidocaine* lotion (B)(G)

LidaMantle Lotn: 3% (177 ml)

lidocaine 5% patch (B)(G) apply up to 3 patches at one time for up to 12 hours/24 hour period (12 hours on/12 hours off); patches may be cut into smaller sizes before removal of the release liner; do not reuse

Lidoderm Patch: 5% (10 x 14 cm; 30/carton)

lidocaine 2.5%/prilocaine 2.5%

Emla Cream (B) (5, 30 gm)

# BURSITIS

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488



# CANDIDIASIS: ABDOMEN, BLADDER, ESOPHAGUS, KIDNEY

voriconazole (D)(G) PO: <40 kg: 100 mg q 12 hours; may increase to 150 mg q 12 hours if inadequate response; ≥40 kg: 200 mg q 12 hours; may increase to 300 mg q 12 hours if inadequate; IV: 6 mg/kg q 12 hours x 2 doses; then 4 mg/kg q 12 hour; max rate 3 mg/kg/hour over 1-2 hours</p>

Vfend Tab: 50, 200 mg

Vfend I.V. for Injection Vial: 200 mg pwdr for reconstitution (preservative-free) Vfend Oral susp: 40 mg/ml pwdr for reconstitution (75 ml) (orange)

## **CANDIDIASIS: ORAL (THRUSH)**

### ORAL ANTIFUNGALS

- clotrimazole (C) <3 years: not recommended; ≥3 years: Prophylaxis: 1 troche dissolved in mouth tid; Treatment: 1 troche dissolved in mouth 5 times/day x 10-14 days
   Mycelex Troches Troches: 10 mg
  </p>
- ▶ fluconazole (C) <2 weeks: not recommended; 2 weeks-12 years: 6 mg/kg x 1 day; then 3 mg/kg/day for at least 3 weeks; see page 566 for dose by weight table; >12 years: 200 mg x 1 dose first day; then 100 mg once daily x 13 days

Diflucan Tab: 50, 100, 150, 200 mg; Oral susp: 10, 40 mg/ml (35 ml) (orange) (sucrose)

- ▶ gentian violet (NE)(G) apply to oral mucosa with a cotton swab tid x 3 days
- itraconazole (C) <12 years: 5 mg/kg daily x 7-14 days; max 200 mg/day; see page 569 for dose by weight table; ≥12 years: 200 mg daily x 7-14 days</p>

Sporanox Oral soln: 10 mg/ml (150 ml) (cherry-caramel)

miconazole (C) <16 years: not recommended; ≥16 years: 1 buccal tab once daily x 14 days; apply to upper gum region; hold place 30 seconds; do not crush, chew, or swallow

Oravig Buccal tab: 50 mg (14/pck)

> nystatin (C)(G)

Mycostatin 1-2 pastilles dissolved slowly in mouth 4-5 times/day x 10-14 days; max 14 days

Pastille: 200,000 units/pastille (30 pastilles/pck)

**Mycostatin Suspension** *Infants*: 1 ml in each cheek qid after feedings; *Older children*: 4-6 ml qid swish and swallow

Oral susp: 100,000 units/ml (60 ml w. dropper)

### INVASIVE INFECTION

posaconazole (D) <13 years: not recommended; ≥13 years: take with food; 100 mg bid on day one; then 100 mg once daily x 13 days; refractory, 400 mg bid
</p>

Noxafil Oral susp: 40 mg/ml (105 ml) (cherry)

Comment: Noxafil is indicated as prophylaxis for invasive aspergillus and candida infections in patients >13 years old who are at high risk due to being severely compromised.

## **CANDIDIASIS: SKIN**

### TOPICAL ANTIFUNGALS

butenafine (B) <12 years: not recommended; ≥12 years: apply bid x 1 week or once daily x 4 weeks

Lotrimin Ultra (C)(OTC) Crm: 1% (12, 24 gm)

Mentax Crm: 1% (15, 30 gm)

**Comment**: *butenafine* is a benzylamine, not an azole. Fungicidal activity continues for at least 5 weeks after the last application.

ciclopirox (B)

**Loprox Cream** <10 years: not recommended; ≥10 years: apply bid; max 4 weeks *Crm*: 0.77% (15, 30, 90 gm)

**Loprox Lotion** <10 years: not recommended; ≥10 years: apply bid; max 4 weeks *Lotn*: 0.77% (30, 60 ml)

**Loprox Gel** <16 years: not recommended; ≥16 years: apply bid; max 4 weeks *Gel*: 0.77% (30, 45 gm)

clotrimazole (B) apply bid x 7 days

**Lotrimin** *Crm*: 1% (15, 30, 45 gm)

Lotrimin AF (OTC) Crm: 1% (12 gm); Lotn: 1% (10 ml); Soln: 1% (10 ml)

econazole (C) apply bid x 14 days

Spectazole Crm: 1% (15, 30, 85 gm)

► *ketoconazole* (C) apply once daily x 14 days

Nizoral Cream Crm: 2% (15, 30, 60 gm) *miconazole* 2% (C) apply once daily x 2 weeks

Lotrimin AF Spray Liquid (OTC) Spray liq: 2% (113 gm) (alcohol 17%)

Lotrimin AF Spray Powder (OTC) Spray pwdr: 2% (90 gm) (alcohol 10%)

Monistat-Derm Crm: 2% (1, 3 oz); Spray liq: 2% (3.5 oz); Spray pwdr: 2%(3 oz)

> nystatin (C)

**Nystop Powder** dust affected skin freely bid-tid *Pwdr: nystatin* 100,000 U/g (15 gm)

### ORAL ANTIFUNGALS

*amphotericin b* (B) apply tid-qid x 7-14 days

**Fungizone** *Oral susp*: 100 mg/ml (24 ml w. dropper)

ketoconazole (C)(G) <2 years: not recommended; ≥2 years-12 years: 3.3-6.6 mg/ kg once daily x 4 weeks; >12 years: initially 200 mg once daily; max 400 mg/day x 4 weeks

Nizoral Tab: 200 mg

**Comment**: Caution with *ketoconazole* due to potential for hepatotoxicity.

### INVASIVE INFECTION

posaconazole (D) <13 years: not recommended; ≥13 years: take with food; 100 mg bid on day one; then 100 mg once daily x 13 days; refractory, 400 mg bid x 13 days</p>

Noxafil Oral susp: 40 mg/ml (105 ml) (cherry)

Comment: Noxafil is indicated as prophylaxis for invasive aspergillus and candida infections in patients >13 years old who are at high risk due to being severely compromised.



## **CANDIDIASIS: VULVOVAGINAL (MONILIASIS)**

### **PROPHYLAXIS**

acetic acid/oxyquinolone (C) <12 years: not recommended; ≥12 years: one full applicator intravaginally bid for up to 30 days</p>

Relagard Gel: acetic acid 0.9%/oxyquin 0.025% (50 gm tube w. applicator)
Comment: The following treatment regimens for vulvovaginal candidiasis
(VVC) are published in the 2015 CDC Sexually Transmitted Diseases Treatment
Guidelines. Treatment regimens are presented by generic drug name first, followed
by information about brands and dose forms. Complicated VVC (recurrent,
severe, non-albicans, or females with uncontrolled diabetes, debilitation, or
immunosuppression) may require more intensive treatment and/or longer
duration of treatment. VVC frequently occurs during pregnancy. Only topical azole
therapies, applied for 7 days, are recommended during pregnancy.

### **ORAL RX AGENT**

▶ fluconazole 150 mg in a single dose; complicated VVC, 150 mg x 3 doses on days 1, 4, 7 or weekly x 6 months

### RX INTRAVAGINAL AGENTS

### Regimen 1

▶ butoconazole 2% cream (bioadhesive product) 5 gm intravaginally in a single dose

### Regimen 2

➤ nystatin 100,000-unit vaginal tablet once daily x 14 days

### Regimen 3

► terconazole 0.4% cream 5 gm intravaginally once daily x 7 days

### Regimen 4

► terconazole 0.8% cream 5 gm intravaginally once daily x 3 days

### Regimen 5

► terconazole 80 mg vaginal suppository intravaginally once daily x 3 days

### OTC INTRAVAGINAL AGENTS

### Regimen 1

butoconazole 2% cream 5 gm intravaginally once daily x 3 days

### Regimen 2

► *clotrimazole* 1% cream intravaginally once daily x 7-14 days

### Regimen 3

clotrimazole 2% cream intravaginally once daily x 3 days

### Regimen 4

*miconazole* 2% cream intravaginally once daily x 7 days

### Regimen 5

➤ miconazole 4% cream intravaginally once daily x 3 days

### Regimen 6

*miconazole* 100 mg vaginal suppository intravaginally once daily x 7 days

### Regimen 7

*miconazole* 200 mg vaginal suppository intravaginally once daily x 3 days

### Regimen 8

▶ miconazole 1,200 mg vaginal suppository intravaginally in a single application

### Regimen 9

► *tioconazole* 6.5% ointment 5 gm intravaginally in a single application

### DRUG BRANDS AND DOSE FORMS

butoconazole cream 2% (C)

Gynazole-12% Vaginal Cream Prefilled vag applicator: 5 g

Femstat-3 Vaginal Cream (OTC) Vag crm: 2% (20 gm w. 3 applicators); Prefilled vag applicator: 5 gm (3/pck)

Gyne-Lotrimin Vaginal Cream (OTC) Vag crm: 1% (45 gm w. applicator)

Gyne-Lotrimin Vaginal Suppository (OTC) Vag supp: 100 mg (7/pck) Gyne-Lotrimin 3 Vaginal Suppository (OTC) Vag supp: 200 mg (3/pck)

Gyne-Lotrimin Combination Pack (OTC) Combination pck: 7-100 mg supp

with 7 gm 1% cream

Gyne-Lotrimin 3 Combination Pack (OTC) Combination pck: 200 mg supp (7/ pck) plus 1% cream (7 gm)

Mycelex-G Vaginal Cream Vag crm: 1% (45, 90 gm w. applicator)

Mycelex-G Vaginal Tab 1 Tab: 500 mg (1/pck)

Mycelex Twin Pack Twin pck: 500 mg tab (7/pck) with 1% crm (7 gm)

Mycelex-7 Vaginal Cream (OTC) Vag crm: 1% (45 gm w. applicator)

Mycelex-7 Vaginal Inserts (OTC) Vag insert: 100 mg insert (7/pck)

Mycelex-7 Combination Pack (OTC) Combination pck: 100 mg inserts (7/pck) plus 1% crm (7 gm)

▶ fluconazole (C)

Diflucan Tab: 50, 100, 150, 200 mg; Oral susp: 10, 40 mg/ml (35 ml) (orange) (sucrose)

miconazole (B)

Monistat-3 Combination Pack (OTC) Combination pck: 200 mg supp (3/pck)

plus 2% crm (9 gm)

Monistat-7 Combination Pack (OTC) Combination pck: 100 mg supp (7/pck) plus 2% crm (9 gm)

Monistat-7 Vaginal Cream (OTC) Vag crm: 2% (45 gm w. applicator)

Monistat-7 Vaginal Suppositories (OTC) Vag supp: 100 mg supp (7/pck)

Monistat-3 Vaginal Suppositories (OTC) Vag supp: 200 mg supp (3/pck)

> nvstatin (C)

Mycostatin Vag tab: 100,000 U (1/pck)

► terconazole (C)

Terazol-3 Vaginal Cream Vag crm: 0.8% (20 gm w. applicator)

Terazol-3 Vaginal Suppositories Vag supp: 80 mg supp (3/pck)

Terazol-7 Vaginal Cream Vag crm: 0.4% (45 gm w. applicator)

tioconazole (C)

1-Day (OTC) Vag oint: 6.5% (prefilled applicator x 1)

Monistat 1 Vaginal Ointment (OTC) Vag oint: 6.5% (prefilled applicator x 1)

Vagistat-1 Vaginal Ointment (OTC) Vag oint: 6.5% (prefilled applicator x 1)

### INVASIVE INFECTION

posaconazole (D) <13 years: not recommended; ≥13 years: take with food; 100 mg bid on day 1; then 100 mg once daily x 13 days; refractory, 400 mg bid Noxafil Oral susp: 40 mg/ml (105 ml) (cherry)

Comment: Noxafil is indicated as prophylaxis for invasive aspergillus and candida infections in patients ≥13 years old who are at high risk due to being severely compromised.

TRIPTOPHAN HYDROXYLASE

# CARCINOID SYNDROME DIARRHEA

► telotristat <18 years: not established; ≥18 years: take with food; 250 mg tid **Xermelo** *Tab*: 250 mg (4 x 7 daily dose packs/carton)

Comment: Take Xermelo in combination with somatostatin analog (SSA) therapy to treat patients inadequately controlled by SSA therapy. Breastfeeding females should monitor the infant for constipation.

## CARPAL TUNNEL SYNDROME (CTS)

Other Oral Analgesics see Pain page 298
Topical/Transdermal NSAIDs see Pain page 298
Parenteral Corticosteroids see page 499
Oral Corticosteroids see page 498
Topical Analgesic and Anesthetic Agents see page 488



## CAT SCRATCH FEVER (BARTONELLA INFECTION)

Comment: Cat scratch fever is usually self-limited. Treatment should be limited to severe or debilitating cases.

### **ANTI-INFECTIVES**

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

**Zithromax** *Tab:* 250, 500, 600 mg; *Oral susp:* 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt:* 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, >100 lb: 100 mg bid; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox *Cap*: 50, 75, 100 mg Oracea *Cap*: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: doxycycline is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

erythromycin base (B)(G) 45 kg: 30-50 mg in 2-4 divided doses x 4 weeks; ≥45 kg: 500-1000 mg qid x 4 weeks

Ery-Tab *Tab*: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

▶ erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 4 weeks; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

### ► trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DŚ <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

# CELLULITIS

Comment: Duration of treatment should be 10-30 days. Obtain culture from site. Consider blood cultures.

### ANTI-INFECTIVES

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

### ⇒ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table; ≥40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days oarsman 2 gm in a single dose</p>

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak *Tab*: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

▶ cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg in 2
or 3 divided doses x 10 days; see page 549 for dose by weight table; max 1 gm/day;
>12 years: 375 mg q 12 hours x 10 days; max 2 gm/day

Tab: 500 mg; Cap: 250, 500 mg; Susp: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with food

*Tab*: 375, 500 mg ext-rel

- cefpodoxime proxetil (B)(G) <2 months: not recommended; ≥2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 7-14 days; see page 553 for dose by weight table; >12 years: 400 mg bid x 7-14 days
- cefprozil (B) <2 years: not recommended; 2-12 years: 15 mg/kg bid x 10 days; see page 554 for dose by weight table; >12 years: 250-500 mg bid or 500 mg daily x 10 days

Cefzil *Tab*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)

ceftaroline fosamil (B) <18 years: not established: ≥18 years: administer 600 mg
 once every 12 hours, by IV infusion over 5-60 minutes, x 5-14 days
</p>

Teflaro Vial: 400, 600 mg pwdr for reconstitution, single use (10/carton)
Comment: Teflaro is indicated for the treatment of acute bacterial skin and skin structures infection (ABSSI).

- ceftriaxone (B)(G) <12 years: 50-75 mg/kg IM in 1-2 divided doses x 5-14 days; max 2 gm/day; ≥12 years: 1-2 gm IM daily x 5-14 days; max 4 gm daily Rocephin Vial: 250, 500 mg; 1, 2 g</p>
- be cefuroxime axetil (B)(G) < 3 months: not recommended; ≥3 months-12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 556 for dose by weight table; ≥12 years: 250-500 mg bid x 10 days
  </p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

➤ cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 500 mg bid x 10 days

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/ kg bid x 10 days; seepage 558 for dose by weight table; >12 years: 500 mg q 12 hours or 500 mg ext-rel once daily x 10 days

Biaxin *Tab*: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

dalbavancin (C) <18 years: not established; ≥18 years: 1,000 mg administered once as a single dose via IV infusion over 30 minutes or initially 1,000 mg once, followed by 500 mg 1 week later; infuse over 30 minutes; CrCl <30 mL/min, not receiving dialysis: initially 750 mg, followed by 375 mg 1 week later
</p>

**Dalvance** *Vial:* 500 mg pwdr for reconstitution, single use (preservative-free) **Comment: Dalvance** is indicated for the treatment of acute bacterial skin and skin structures infection (ABSSSI) caused by gram positive bacteria.

dicloxacillin (B)(G) <12 years: 12.5-25 mg/kg/day in 4 divided doses x 10 days; see page 560 for dose by weight table; ≥12 years: 500 mg q 6 hours x 10 days
</p>

Dynapen Cap: 125, 250, 500 mg; Oral susp: 62.5 mg/5 ml (80, 100, 200 ml)

dirithromycin (Ĉ)(G) <12 years: not recommended; ≥12 years: 500 mg once daily x
 7-10 days
</p>

Dynabac Tab: 250 mg

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 7-10 days;
 ≥45 kg: 250 mg qid or 333 mg tid or 500 mg bid x 7-10 days; then taper to lowest
 effective dose
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

▶ linezolid (C)(G) <5 years: 10 mg/kg q 8 hours x 10-14 days; 5-11 years: 10 mg/kg q 12 hours x 10-14 days; >11 years: 400-600 mg q 12 hours x 10-14 days

Zyvox Tab: 400, 600 mg; Oral susp: 100 mg/5 ml (150 ml) (orange) (phenylalanine)

**Comment**: *linezolid* is indicated to treat susceptible vancomycin-resistant *E. faecium* infections of skin and skin structures, including diabetic foot without osteomyelitis.

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 10 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 10 days</p>

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

moxifloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg daily x 5 days
</p>

Avelox *Tab*: 400 mg; IV soln: 400 mg/250 mg (latex-free, preservative-free)

Comment: *moxifloxacin* is contraindicated <18 years-of-age and during pregnancy and lactation. Risk of tendonitis or tendon.

oritavancin (C) <18 years: not established; ≥18 years: administer 1,200 mg as a single dose by IV infusion over 3 hours
</p>

**Orbactiv** *Vial*: 400 mg pwdr for reconstitution, single use (10/carton) (mannitol; preservative-free)

**Comment: Orbactiv** is indicated for the treatment of acute bacterial skin and skin structures infection (ABSSSI).

Penicillin V potassium (B) <12 years: 25-75 mg/kg day divided q 6-8 hours x 5-7 days; see page 572 for dose by weight table; ≥12 years: 250-500 mg q 6 hours x 5-7 days</p>

Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)

tedizolid phosphate (C) <18 years: not established; ≥18 years: administer 200 mg once daily x 6 days, via PO or IV infusion over 1 hour
</p>

Sivextro Tab: 200 mg (6/blister pck)

Comment: Sivextro is indicated for the treatment of acute bacterial skin and skin structures infection (ABSSSI).

tigecycline (D)(G) <18 years: not recommended; ≥18 years: 100 mg as a single dose; then 50 mg q 12 hours x 5-14 days; with severe hepatic impairment (Child Pugh C), 100 mg as a single dose; then 25 mg q 12 hours
</p>

Tygacil *Vial*: 50 mg pwdr for reconstitution and IV infusion (preservative-free) Comment: Tygacil is contraindicated in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photo-sensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

# CERUMEN IMPACTION

### OTIC ANALGESIC

➤ antipyrine/benzocaine/zinc acetate dihydrate otic (C) fill ear canal with solution; then moisten cotton plug with solution and insert into meatus; may repeat every 1-2 hours prn

Otozin Otic soln: antipyr 5.4%/benz 1%/zinc 1% per ml (10 ml w. dropper)

### CERUMINOLYTICS

▶ triethanolamine (NE)(OTC)(G) fill ear canal and insert cotton plug for 15-30 minutes before irrigating with warm water

Cerumenex Soln: 10% (6, 12 ml)

carbamide peroxide (NE)(OTC)(G) instill 5-10 drops in ear canal; keep drops in ear several minutes; then irrigate with warm water; repeat bid for up to 4 days
Debrox Soln: 15, 30 ml squeeze bottle w. applicator

## **CHAGAS DISEASE (AMERICAN TRYPANOSOMIASIS)**

Comment: Chagas Disease is a protozoal parasite (Trypanosoma cruzi) infection with increasing prevalence in the US attributed to immigration from *T. cruzi*- endemic areas of South and Central Latin America. Approximately 300,000 persons in the US have chronic Chagas Disease and up to 30% of them will develop clinically evident cardiovascular and/or gastrointestinal disease. Chagas Disease is one of the five neglected parasitic infections (NPIs) targeted by CDC for public health action. Transmitted by the bite of the triatomine bug ("kissing bug") which feeds on human blood, maternal-fetus vertical transmission, blood transfusion, consumption of contaminated food, and organ donation. A clinical marker is Romaña sign (periorbital swelling), chagoma (skin nodule), Schizotrypanides (nonpruritic morbilliform rash). Only two antiparasitic drugs, benznidazole and nifurtimox, have demonstrated effectiveness altering the progression of this chronic disease. These drugs are not FDA approved and are available only from CDC under investigational protocols. Treatment is indicated for all cases of acute or reactivated Chagas Disease and for chronic Trypanosoma cruzi infection in children ≤18. Congenital infections are considered acute disease. Treatment is strongly recommended up to 50 years old with chronic infection who do not already have advanced Chagas cardiomyopathy. For adults older than 50 years with chronic *T. cruzi* infection, the decision to treat with antiparasitic drugs should be

individualized, weighing the potential benefits and risks for the patient. Patients taking either of these drugs should have a CBC and CMP at the start of treatment and then bi-monthly for the duration of treatment to monitor for rare bone marrow suppression. Contraindications for treatment include severe hepatic and/or renal disease. As safety for infants exposed through breastfeeding has not been documented, withholding treatment while breastfeeding is also recommended. For emergencies (for example, acute Chagas Disease with severe manifestations, Chagas Disease in a newborn, or Chagas Disease in an immunocompromised person) outside of regular business hours, call the CDC Emergency Operations Center (770-488-7100) and ask for the person on call for Parasitic Diseases. For more detailed information about screening, assessment, and treatment of this public health threat, see McDonald, J, & Mattingly, J. (November, 2016). Chagas disease: Creeping into family practice in the United States, Clinician Reviews, pp. 38-45, or call 404-718-4745 or e-mail questions to chagas@cdc.gov.

### ANTI-PARASITIC AGENTS

- benznidazole (NR)(G) take with a meal to avoid GI upset; <12 years: 5-7.5 mg/kg/day divided bid x 60 days; ≥12 years: 5-7 mg/kg/day divided bid x 60 days</p>
  Comment: Common side effects of benznidazole are allergic dermatitis, peripheral neuropathy, insomnia, anorexia with weight loss.
- - Comment: Common side effects of *nifurtimox* are anorexia and weight loss, nausea, vomiting, polyneuropathy, headache, dizziness or vertigo.

# CHANCROID

### ANTI-INFECTIVES

⇒ azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days oarsman 2 gm in a single dose

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg reconstitution (cherry-banana))

► ceftriaxone (B)(G) <45 kg: 125 mg IM in a single dose; ≥45 kg: 250 mg IM in a single dose

Rocephin Vial: 250, 500 mg; 1, 2 g

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 10 days; max 1.5 gm/day
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1,000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

rythromycin base (B)(G) <45 kg: 30-50 mg/kg/day divided bid-qid; max 100 mg/ kg/day; >45 kg: 500 mg gid x 7 days

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg gid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

## CHICKENPOX (VARICELLA)

### **PROPHYLAXIS**

➤ Varicella virus vaccine, live, attenuated (C)

Varivax <12 months: not recommended; 12 months-12 years: 1 dose of 0.5 ml SC; repeat 4-6 weeks later; >12 years: 0.5 ml SC; repeat 4-8 weeks later *Vial*: 1350 PFU/0.5 ml single dose w. diluent (preservative-free)

Comment: Administer Varivax SC in the deltoid for all ages.

### TREATMENT

Antipyretics see Fever page 136

### ORAL ANTIPRURITICS

*▶* diphenhydramine (B)(G)

Benadryl (OTC) <2 years: not recommended; 2-6 years: 6.25 mg q 4-6 hours; max 37.5 mg/day; >6-12 years: 12.5-25 mg q 4-6 hours; max 150 mg/day; >12 years: 25-50 mg q 6-8 hours; max 100 mg/day

Chew tab: 12.5 mg (grape) (phenylalanine); Liq: 12.5 mg/5 ml (4, 8 oz); Cap: 25 mg; Tab: 25 mg; Dye-free soft gel: 25 mg; Dye-free liq: 12.5 mg/5 ml (4, 8 oz)

*diphenhydramine* injectable (B)(G)

Benadryl Injectable <12 years: See mfr pkg insert: 1.25 mg/kg up to 25 mg IM x 1 dose; then q 6 hours prn; ≥12 years: 25-50 mg IM immediately; then q 6 hours prn

Vial: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multi-dose); Amp: 10 mg/ml (1 ml); Prefilled syringe: 50 mg/ml (1 ml)

hydroxyzine (C)(G) <6 years: 50 mg/day divided gid; 6-12 years: 50-100 mg/day divided qid; >12 years: 50-100 mg qid; max 600 mg/day

Atarax Tab: 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)

**Vistaril** *Cap*: 25, 50, 100 mg; *Oral susp*: 25 mg/5 ml (4 oz) (lemon)

Comment: *hydroxyzine* is contraindicated in early pregnancy and in patients with a prolonged QT interval. It is not known whether this drug is excreted in human milk; therefore, *hydroxyzine* should not be given to nursing mothers.

#### **ANTIVIRALS**

acyclovir (B)(G) <2 years: not recommended; ≥2 years, <40 kg: 20 mg/kg qid x 5 days;≥2 years, >40 kg: 800 mg qid x 5 days; see page 541 for dose by weight table
 Zovirax Cap: 200 mg; Tab: 400, 800 mg

Zovirax Oral Suspension Oral susp: 200 mg/5 ml (banana)



#### CHLAMYDIA TRACHOMATIS

Comment: The following treatment regimens for *C. trachomatis* are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms. Treat all sexual contacts. Patients who are HIV-positive should receive the same treatment as those who are HIV-negative. Sexual abuse must be considered a cause of chlamydial infection in preadolescent children, although perinatally transmitted *C. trachomatis* infections of the nasopharynx, urogenital tract, and rectum may persist for >1 year.

#### RECOMMENDED REGIMENS: ADOLESCENT AND ≥18 YEARS, NON-PREGNANT

#### Regimen 1

→ azithromycin 1 gm in a single dose

#### Regimen 2

*doxycycline* 100 mg bid x 7 days

# ALTERNATIVE REGIMENS: ADOLESCENT AND ≥18 YEARS, NON-PREGNANT Regimen 1

> erythromycin base 500 mg qid x 7 days

#### Regimen 2

*▶ erythromycin ethylsuccinate* 800 mg qid x 7 days

### Regimen 3

levofloxacin 500 mg once daily x 7 days

#### Regimen 4

ofloxacin 300 mg bid x 7 days

#### **RECOMMENDED REGIMENS: PREGNANCY**

#### Regimen 1

azithromycin 1 gm in a single dose

#### Regimen 2

 $\Rightarrow$  amoxicillin (B)(G) < 40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table; ≥40 kg: 500 mg tid x 7 days

#### ALTERNATE REGIMENS: PREGNANCY

#### Regimen 1

erythromycin base 500 mg qid x 7 days

#### Regimen 2

erythromycin base 250 mg qid x 14 days

#### Regimen 3

> erythromycin ethylsuccinate 800 mg qid x 7 days

#### Regimen 4

erythromycin ethylsuccinate 400 mg qid x 14 days

#### ALTERNATE REGIMENS: CHILDREN ≤8 YEARS

#### Regimen 1

azithromycin 1 gm in a single dose

#### Regimen 2

doxycycline 100 mg bid x 7 days

### ALTERNATE REGIMEN: CHILDREN >45 KG; <8 YEARS

### Regimen 1

azithromycin 1 gm in a single dose

#### ALTERNATE REGIMENS: INFANTS

#### Regimen 1

erythromycin base 50 mg/kg/day in divided doses qid x 14 days

#### Regimen 2

erythromycin ethylsuccinate 50 mg/kg/day divided gid x 14 days

#### DRUG BRANDS AND DOSE FORMS

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, >100 lb: 100 mg bid; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within 2 hours of taking another drug.

> erythromycin base (B)(G)

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

rythromycin ethylsuccinate (B)(G)

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 gaffer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

levofloxacin (C)

Levaquin Tab: 250, 500, 750 mg

Comment: levofloxacin is contraindicated; <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

▶ ofloxacin (C)(G)

Floxin Tab: 200, 300, 400 mg

Comment: *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

### CHOLELITHIASIS

wrsodiol (B) <12 years: not recommended; ≥12 years: 8-10 mg/kg/day in 2-3 divided doses</p>

Actigall Cap: 300 mg

**Comment:** Actigall is indicated for the dissolution of radiolucent, non-calciferous, gallstones <20 mm in diameter and for prevention of gallstones during rapid weight loss.

### CHOLERA (*VIBRIO CHOLERAE*)

Comment: June 10, 2016, the FDA approved the first vaccine for the prevention of cholera caused by serogroup O1 (the most predominant cause of cholera globally

[WHO]) in patients aged 18-64 years traveling to cholera-affected areas (https://www.drugs.com/newdrugs/fda-approves-vaxchora-cholera-vaccine-live-oral-prevent-cholera-travelers-4396.html). **Vaxchora** (R) is the only FDA-approved vaccine for the prevention of cholera. The bacterium *Vibrio cholerae* is acquired by ingesting contaminated water or food and causes nausea, vomiting, and watery diarrhea that may be mild to severe. Profuse fluid loss may cause life-threatening dehydration if antibiotics and fluid replacement are not initiated promptly.

#### **VACCINE PROPHYLAXIS**

#### ➤ Vibrio cholerae vaccine

Vaxchora reconstitute the buffer component in 100 ml purified bottled water; then add the active component (lyophilized V. cholerae CVD 103-HgR); total dose after reconstitution is 100 ml; instruct the patient to avoid eating or drinking fluids for 60 minutes before and after ingestion of the dose Comment: Vaxchora is a live, attenuated vaccine that is taken as a single oral dose at least 10 days before travel to a cholera-affected area and at least 10 days before starting antimalarial prophylaxis. Diminished immune response occurs when taken concomitantly with *chloroquine*. Avoid concomitant administration with systemic antibiotics since these agents may be active against the vaccine strain. Do not administer to patients who have received an oral or parental antibiotic within 14 days prior to vaccination. Vaxchora may be shed in the stool of recipients for at least 7 days. There is potential for transmission of the vaccine strain to non-vaccinated and immunocompromised close contacts. The Centers for Disease Control and Prevention and several health professional organizations state that vaccines given to a nursing mother do not affect the safety of breastfeeding for mothers or infants and that breastfeeding is not a contraindication to cholera vaccine. Vaxchora is not absorbed systemically, and maternal use is not expected to result in fetal exposure to the drug. The Vaxchora pregnancy exposure registry for reporting adverse events is 800-533-5899. There are 0 disease interactions, but at least 165 drug-drug interactions with Vaxchora (see mfr pkg insert).

#### **TREATMENT**

Comment: The first-line treatment for *V. cholerae* is oral rehydration therapy (ORT) and intravenous fluid replacement as indicated. Antibiotic therapy may shorten the duration and severity of symptoms, but is optional in other than severe cases. Although *doxycycline* is contraindicated in pregnancy and in children <8 years-of-age, the benefits may outweigh the risks (WHO, CDC, UNICEF). Although *ciprofloxacin* is contraindicated in children <18 years-of-age, the benefits may outweigh the risks (WHO, CDC, UNICEF). Cholera is not transmitted from person to person, but rather the fecal-oral route. Therefore, chemoprophylaxis is not usually required with strict hand hygiene and sanitation measures, and avoidance of contaminated food and water. Drugs and dosages for chemoprophylaxis are the same as for treatment.

### NON-PREGNANT FEMALES ≤15 YEARS-OF-AGE

#### Regimen 1

► doxycycline (D)(G) 300 mg in a single dose Acticlate *Tab*: 75, 150\*\* mg Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin *Tab*: 100 mg; *Cap*: 50, 100 mg; *Syr*: 50 mg/5 ml (raspberry-apple) (sulfites); *Oral susp*: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within 2 hours of taking another drug.

#### Regimen 2

*azithromycin* (B) 1000 mg in a single dose

Zithromax Tab: 250, 500, 600 mg

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>) or

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 1000 mg in a single dose
 Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml)
 (strawberry)
</p>

Cipro XR Tab: 500, 1000 mg ext-rel ProQuin XR Tab: 500 mg ext-rel

#### PREGNANT FEMALES ≤15 YEARS-OF-AGE

*⇒ azithromycin* (B) 1,000 mg in a single dose

Zithromax Tab: 250, 500, 600 mg

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

erythromycin (B)(G) 500 mg q 6 hours x 3 days

E.E.S. 400 Tablets Tab: 400 mg

Erv-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

### CHILDREN 3-15 YEARS-OF-AGE WHO CAN SWALLOW TABLETS

#### Regimen 1

> erythromycin (B)(G) 12.5 mg/kg q 6 hours x 3 days

E.E.S. 400 Tablets Tab: 400 mg

Erv-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

<u>or</u>

*azithromycin* (B) 20 mg/kg in a single dose; max 1 gm

Zithromax *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry)

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

#### Regimen 2

ciprofloxacin (D) <18 years: not recommended; ≥18 years: 20 mg/kg in a single dose
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel ProQuin XR Tab: 500 mg ext-rel

or

*doxycycline* (D)(G) 2-4 mg/kg in a single dose

Acticlate Tab: 75, 150\*\*mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox *Cap*: 50, 75, 100 mg Oracea *Cap*: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

#### CHILDREN <3 YEARS-OF-AGE

#### Regimen 1

> erythromycin ethylsuccinate (B)(G) 12.5 mg/kg q 6 hours x 3 days; use suspension E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry, fruit); *Chew tab* 200 mg wafer (fruit)

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

0

azithromycin (B) 20 mg/kg in a single dose; max 1 g; use suspension

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml(15, 22.5, 30 ml) (cherry)

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

### Regimen 2

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 20 mg/kg in a single dose; use suspension
</p>

Cipro (G) Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

doxycycline (D)(G) <8 years: not recommended; ≥8 years: 2-4 mg/kg in a single dose; use suspension or syrup</p>

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

### COLIC: INFANTILE

- ► hyoscyamine (C)(G) 3-4 kg: 4 drops q 4 hours prn; max 24 drops/day; 5 kg: 5 drops q 4 hours prn; max 30 drops/day; 7 kg: 6 drops q 4 hours prn; max 36 drops/day; 10 kg: 8 drops q 4 hours prn; max 40 drops/day
  - Levsin Drops Oral drops: 0.125 mg/ml (15 ml) (orange) (alcohol 5%)
- simethicone (C) 0.3 ml qid pc and HS

Mylicon Drops (OTC) Oral drops: 40 mg/0.6 ml (30 ml)



# COMMON COLD (VIRAL UPPER RESPIRATORY INFECTION [URI])

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold see page 523

Oral Antipyretic-Analgesics see Fever page 136

#### NASAL SALINE DROPS/SPRAYS

**>** saline nasal spray (NE)(G)

Afrin Saline Mist w. Eucalyptol and Menthol (OTC) 1 month-2 years: 1-2 sprays in each nostril prn; >2-12 years: 1-4 sprays in each nostril prn; >12 years: 2-6 sprays in each nostril Squeeze bottle: 45 ml

Afrin Moisturizing Saline Mist (OTC) 1 month-2 years: 1-2 sprays in each nostril prn; >2-12 years: 1-4 sprays in each nostril prn; >12 years: 2-6 sprays in each nostril prn

Saueeze bottle: 45 ml

Ocean Mist (OTC) 1 month-2 years: 1-2 sprays in each nostril prn; >2-12 years: 1-4 sprays in each nostril prn; >12 years: 2-6 sprays in each nostril prn *Squeeze bottle: saline* 0.65% (45 ml) (alcohol-free)

Pediamist (OTC) 1 month-2 years: 1-2 sprays in each nostril prn; >2-12 years: 1-4 sprays in each nostril prn; >12 years: 2-6 sprays in each nostril prn *Squeeze bottle: saline* 0.5% (15 ml) (alcohol-free)

#### NASAL SYMPATHOMIMETICS

oxymetazoline (C)(OTC) <6 years: not recommended; 6-12 years: use 4-hour formulation; 2-3 drops or sprays q 4 hours prn; max duration 5 days; >12 years: may use 12-hour formulation; 2-3 drops or sprays in each nostril q 10-12 hours prn; max 2 doses/day; max duration 5 days

Afrin 12-Hour Extra Moisturizing Nasal Spray

Afrin 12-Hour Nasal spray Pump Mist

Afrin 12-Hour Original Nasal spray

Afrin 12-Hour Original Nose Drops

Afrin 12-Hour Severe Congestion Nasal Spray

Afrin 12-Hour Sinus Nasal Spray

Nasal spray: 0.05% (45 ml); Nasal drops: 0.05% (45 ml)

Afrin 4-Hour Nasal Spray

Neo-Synephrine 12 Hour Nasal Spray

Neo-Synephrine 12 Hour Extra Moisturizing Nasal Spray

Nasal spray: 0.05% (15 ml)

**▶** phenylephrine (C)

Afrin Allergy Nasal Spray (OTC) <12 years: not recommended; ≥12 years: 2-3 sprays in each nostril q 4 hours prn; max duration 5 days

Nasal spray: 0.5% (15 ml)

Afrin Nasal Decongestant Children's Pump Mist (OTC) <6 years: not recommended; ≥6 years: 2-3 sprays in each nostril q 4 hours prn; max duration 5 days

Nasal spray: 0.25% (15 ml)

Neo-Synephrine Extra Strength (OTC) <12 years: not recommended; ≥12 years: 2-3 sprays or drops in each nostril q 4 hours prn; max duration 5 days Nasal spray: 0.1% (15 ml); Nasal drops: 0.1% (15 ml)

Neo-Synephrine Mild Formula (OTC) <6 years: not recommended; ≥6 years: 2-3 sprays or drops in each nostril q 4 hours prn; max duration 5 days Nasal spray: 0.25% (15 ml)

Neo-Synephrine Regular Strength (OTC) <12 years: not recommended; ≥12 years: 2-3 sprays or drops in each nostril q 4 hours prn; max duration 5 days Nasal spray: 0.5% (15 ml); Nasal drops: 0.5% (15 ml)

tetrahydrozoline (C)

Tyzine <6 years: not recommended; ≥6 years: 2-4 drops or 3-4 sprays in each nostril q 3-8 hours prn; max duration 5 days

Nasal spray: 0.1% (15 ml); Nasal drops: 0.1% (30 ml)

Tyzine Pediatric Nasal Drops 2-3 sprays or drops in each nostril q 3-6 hours pr<br/>n

Nasal drops: 0.05% (15 ml)

### **CONJUNCTIVITIS: ALLERGIC**

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms  $\it page~523$ 

#### OPHTHALMIC CORTICOSTEROIDS

Comment: Concomitant contact lens wear is contraindicated during therapy. Ophthalmic steroids are contraindicated with ocular, fungal, mycobacterial, viral (except herpes zoster), and untreated bacterial infection. Ophthalmic steroids may mask or exacerbate infection, and may increase intraocular pressure, optic nerve damage, cataract formation, or corneal perforation. Limit ophthalmic steroid use to 2-3 days if possible; usual max 2 weeks. With prolonged or frequent use, there is risk of corneal and scleral thinning and cataract formation.

dexamethasone (C) <12 years: not recommended; ≥12 years: initially 1-2 drops hourly during the day and q 2 hours at night; then prolong dosing interval to 4-6 hours as condition improves
</p>

Maxidex Ophth susp: 0.1% (5, 15 ml) (benzalkonium chloride)

dexamethasone phosphate (C) <12 years: not recommended; ≥12 years: initially 1-2
 drops hourly during the day and q 2 hours at night; then 1 drop q 4-8 hours or more
 as condition improves
</p>

Decadron Ophth soln: 0.1% (5 ml) (sulfites)

Fluorometholone (C) <12 years: not recommended; ≥12 years: 1 drop bid-qid or 1/2 inch of ointment once daily-tid; may increase dose frequency during initial 24-48 hours</p>

FML Ophth susp: 0.1% (5, 10, 15 ml) (benzalkonium chloride)

FML Forte Ophth susp: 0.25% (5, 10, 15 ml) (benzalkonium chloride)

FML S.O.P. Ointment Ophth oint: 0.1% (3.5 gm)

▶ fluorometholone acetate (C) <12 years: not recommended; ≥12 years: initially 2 drops q 2 hours during the first 24-48 hours; then 1-2 drops qid as condition improves

Conjunctivitis: Allergic ● 79

Flarex Ophth susp: 0.1% (2.5, 5 10 ml) (benzalkonium chloride)

loteprednol etabonate (C)

Alrex <12 years: not recommended; ≥12 years: 1 drop qid Ophth susp: 0.2% (5, 10 ml) (benzalkonium chloride)

Lotemax <12 years: not recommended; ≥12 years: 1-2 drops qid Ophth susp: 0.5% (5, 10, 15 ml) (benzalkonium chloride)

- medrysone (C) <12 years: not recommended; ≥12 years: 1 drop up to q 4 hours
   HMS Ophth susp: 1% (5, 10 ml) (benzalkonium chloride)
  </p>
- rimexolone (C) <12 years: not recommended; ≥12 years: initially 1-2 drops hourly
   while awake x 1 week; then 1 drop q 2 hours while awake x 1 week; then taper as
   condition improves
  </p>

**Vexol** *Ophth susp*: 0.1% (5, 10 ml) (benzalkonium chloride)

▶ prednisolone acetate (C)(G)

Econopred <12 years: not recommended; ≥12 years: 2 drops qid *Ophth susp*: 0.125% (5, 10 ml)

Econopred Plus <12 years: not recommended; ≥12 years: 2 drops qid Ophth susp: 1% (5, 10 ml)

Pred Forte <12 years: not recommended; ≥12 years: initially 2 drops hourly x 24-48 hours; then 1-2 drops bid-qid

*Ophth susp*: 1% (1, 5, 10, 15 ml) (benzalkonium chloride, sulfites)

Pred Mild <12 years: not recommended; ≥12 years: initially 2 drops hourly x 24-48 hours; then 1-2 drops bid-qid

Ophth susp: 0.12% (5, 10 ml) (benzalkonium chloride)

prednisolone sodium phosphate (C) <12 years: not recommended; ≥12 years: initially 1-2 drops hourly during the day and q 2 hours at night; then 1 drop q 4 hours; then 1 drop tid-qid as condition improves
</p>

Inflamase Forte *Ophth soln*: 1% (5, 10, 15 ml) (benzalkonium chloride) Inflamase Mild *Ophth soln*: 1/8% (5, 10 ml) (benzalkonium chloride)

#### OPHTHALMIC H1 ANTAGONISTS (ANTIHISTAMINES)

Comment: May insert contact lens 10 minutes after administration of ophthalmic antihistamine.

Emedastine (C) <3 years: not recommended; ≥3 years: 1 drop qid prn Emadine Ophth soln: 0.05% (5 ml) (benzalkonium chloride)

► levocabastine (C) <12 years: not recommended; ≥12 years: 1 drop qid prn Livostin Ophth susp: 0.05% (2.5, 5, 10 ml) (benzalkonium chloride)

#### **OPHTHALMIC MAST CELL STABILIZERS**

Comment: Concomitant contact lens wear is contraindicated during treatment.

cromolyn sodium (B) <4 years: not recommended; ≥4 years: 1-2 drops 4-6 x/day at regular intervals
</p>

Crolom *Ophth soln:* 4% (10 ml) (benzalkonium chloride)

▶ lodoxamide tromethamine (B) <2 years: not recommended; ≥2 years: 1-2 drops qid up to 3 months</p>

Alomide Ophth soln: 1% (10 ml) (benzalkonium chloride)

Penedocromil (B) <3 years: not recommended; ≥3 years: 1-2 drops bid Alocril Ophth soln: 2% (5 ml) (benzalkonium chloride) pemirolast potassium (C) 3 years: not recommended; ≥3 years: 1-2 drops qid
 Alamast Ophth soln: 0.1% (10 ml) (lauralkonium chloride)

#### OPHTHALMIC ANTIHISTAMINE/MAST CELL STABILIZER COMBINATIONS

Comment: May insert contact lens 10 minutes after ophthalmic administration.

azelastine (C) <3 years: not recommended; ≥3 years: 1 drop each eye bid
 Optivar Ophth soln: 0.05% (6 ml) (benzalkonium chloride)
</p>

Comment: May insert contact lens 10 minutes after ophthalmic administration.

bepotastine besilate (C) <2 years: not recommended; ≥2 years: 1 drop each eye bid Bepreve Ophth soln: 1.5% (10 ml) (benzalkonium chloride)

Comment: May insert contact lens 10 minutes after ophthalmic administration.

- Pepinastine (C)(G) <3 years: not recommended; ≥3 years: 1 drop each eye bid Elestat Ophth soln: 0.05% (5 ml) (benzalkonium chloride)
- ketotifen fumarate (C) <3 years: not recommended; ≥3 years: 1 drop each eye q 8-12 hours

Alaway (OTC) *Ophth soln:* 0.025% (10 ml) (benzalkonium chloride) Claritin Eye (OTC) *Ophth soln:* 0.025% (5 ml) (benzalkonium chloride) Refresh Eye Itch Relief (OTC) *Ophth soln:* 0.025% (5 ml) (benzalkonium chloride)

Zaditor (OTC) *Ophth soln*: 0.025% (5 ml)(benzalkonium chloride) Zvrtec Itchv Eye (OTC) *Ophth soln*: 0.025% (5 ml) (benzalkonium chloride)

*olopatadine* (C) <3 years: not recommended; ≥3 years: 1 drop each eye bid

Pataday (G) Ophth soln: 0.2% (2.5 ml) (benzalkonium chloride)

Patanol Ophth soln: 0.1% (5 ml) (benzalkonium chloride) Pazeo Ophth soln: 0.7% (2.5 ml) (benzalkonium chloride)

Comment: May insert contact lens 10 minutes after administration.

#### OPHTHALMIC VASOCONSTRICTORS

Comment: Concomitant contact lens wear is contraindicated during treatment.

naphazoline (C) <12 years: not recommended; ≥12 years: 1-2 drops each eye qid
 prn
</p>

Vasocon-A Ophth soln: 0.1% (15 ml) (benzalkonium chloride)

Visine L-R Ophth soln: 0.025% (15, 30 ml)

tetrahydrozoline (NE)(OTC)(G) <6 years: not recommended; ≥6 years: 1-2 drops each eye qid prn
</p>

Visine Ophth soln: 0.05% (15, 22.5, 30 ml)

#### OPHTHALMIC VASOCONSTRICTOR/MOISTURIZER COMBINATION

Comment: Concomitant contact lens wear is contraindicated during treatment.

tetrahydrozoline/polyethylene glycol 400/povidone/dextran 70 (NE)(OTC) <6 years: not recommended; ≥6 years: 1-2 drops each eye qid prn
</p>

Advanced Relief Visine Ophth soln: tetra 0.025%/poly 1%/pov 1%/dex 0.1% (15, 30 ml)

#### OPHTHALMIC VASOCONSTRICTOR/ASTRINGENT COMBINATION

**Comment:** Concomitant contact lens wear is contraindicated during treatment.

tetrahydrozoline/zinc sulfate (NE)(OTC) <6 years: not recommended; ≥6 years: 1-2
 drops each eye qid prn
</p>

Visine AC Ophth soln: tetra 0.025%/zinc 0.05% (15, 30 ml)

#### OPHTHALMIC VASOCONSTRICTOR/ANTIHISTAMINE COMBINATIONS

Comment: Concomitant contact lens wear is contraindicated during treatment.

paphazoline/pheniramine (C) <6 years: not recommended; ≥6 years: 1-2 drops each eye qid
</p>

Naphcon-A (OTC) Ophth soln: naph 0.025%/phen 0.3% (15 ml) (benzalkonium chloride)

#### OPHTHALMIC NSAIDs

Comment: Concomitant contact lens wear is contraindicated during treatment.

- diclofenac (B) <12 years: not recommended; ≥12 years: 1 drop affected eye(s) qid
   Voltaren Ophthalmic Solution Ophth soln: 0.1% (2.5, 5 ml)
  </p>
- ► ketorolac tromethamine (C) <3 years: not recommended; ≥3 years: 1 drop affected eye(s) qid; max x 4 days

Acular Ophth soln: 0.5% (3, 5, 10 ml) (benzalkonium chloride)

Acular LS Ophth soln: 0.4% (5 ml) (benzalkonium chloride)

Acular PF *Ophth soln*: 0.5% (0.4 ml; 12 single-use vials/carton) (preservative-free)

Pepafenac (C) <10 years: not recommended; ≥10 years: 1 drop affected eye(s) tid Nevanac Ophthalmic Suspension Ophth susp: 0.1% (3 ml) (benzalkonium chloride)



# CONJUNCTIVITIS/BLEPHAROCONJUNCTIVITIS: BACTERIAL

#### **OPHTHALMIC ANTI-INFECTIVES**

- azithromycin ophthalmic solution (B)(G) <1 year: not recommended; ≥1 year: 1
   drop to affected eye(s) bid x 2 days; then 1 drop once daily for the next 5 days
   AzaSite Ophthalmic Solution Ophth susp: 1% (2.5 ml) (benzalkonium chloride)
  </p>
- bacitracin ophthalmic ointment (C)(G) apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) 1-3 x daily x 7 days

Bacitracin Ophthalmic Ointment Ophth oint: 500 units/g (3.5 gm)

- besifloxacin ophthalmic solution (C) <1 year: not recommended; ≥1 year: 1 drop to affected eye(s) tid x 7 days</p>
  - Besivance Ophthalmic Solution *Ophth susp*: 0.6% (5 ml) (benzalkonium chloride)
- ciprofloxacin ophthalmic ointment (C) <2 years: not recommended; ≥2 years: apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) tid x 2 days; then bid x 5 days</p>

Ciloxan Ophthalmic Ointment Ophth oint: 0.3% (3.5 gm)

ciprofloxacin ophthalmic solution (C) <1 years: not recommended; ≥1 year: 1-2
 drops to affected eye(s) q 2 hours while awake x 2 days; then, q 4 hours while awake
 x 5 days
</p>

Ciloxan Ophthalmic Solution Ophth soln: 0.3% (2.5, 5, 10 ml) (benzalkonium chloride)

> erythromycin ophthalmic ointment (B) apply 1/2 inch ribbon to the lower conjunctival sac of affected eve(s) up to 6 x/day

Ilotycin Ophthalmic Ointment Ophth oint: 5 mg/g (1/8 oz)

**p** gatifloxacin ophthalmic solution (C)

**Zymar Ophthalmic Solution** <1 year: not recommended; ≥1 year: initially 1 drop to affected eye(s) q 2 hours while awake up to 8 times/day for 2 days; then 1 drop qid while awake x 5 more days

Ophth soln: 0.3% (5 ml) (benzalkonium chloride)

**Zymaxid Ophthalmic Solution(G)** <1 year: not recommended; ≥1 year: initially 1 drop to affected eye(s) q 2 hours while awake up to 8 times/day on day 1; then 1 drop bid-qid while awake on days 2-7

Ophth soln: 0.5% (2.5 ml) (benzalkonium chloride)

pentamicin sulfate ophthalmic ointment (C)(G) apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) bid-tid

Garamycin Ophthalmic Ointment Ophth oint: 3 mg/g (3.5 gm) (preservative-free formulation available)

Genoptic Ophthalmic Ointment Ophth oint: 3 mg/g (3.5 gm)

Gentacidin Ophthalmic Ointment Ophth oint: 3 mg/g (3.5 gm)

gentamicin sulfate ophthalmic solution (C)(G) 1-2 drops to affected eye(s) q 4 hours x 7-14 days; max 2 drops q 1 h

Garamycin Ophthalmic Solution Ophth soln: 0.3% (5 ml) (benzalkonium chloride)

Genoptic Ophthalmic Solution Ophth soln: 0.3% (3, 5 ml)

levofloxacin ophthalmic solution (C) <1 year: not recommended; ≥1 years: 1-2 drops to affected eye(s) q 2 hours while awake on days 1 and 2 (max 8 times/day); then 1-2 drops q 4 hours while awake on days 3-7; max 4 x/day</p>

Quixin Ophthalmic Solution Ophth soln: 0.5% (2.5, 5 ml) (benzalkonium chloride)

moxifloxacin ophthalmic solution (C) <1 year: not recommended; ≥1 year: 1 drop to affected eye(s) tid x 7 days
</p>

Moxeza Ophthalmic Solution (G) Ophth soln: 0.5% (3 ml)

Vigamox Ophthalmic Solution Ophth soln: 0.5% (3 ml)

ofloxacin ophthalmic solution (C) <1 year: not recommended; ≥1 year: 1-2 drops to affected eye(s) q 2-4 hours x 2 days; then qid x 5 days
</p>

Ocuflox Ophthalmic Solution Ophth soln: 0.3% (5, 10 ml) (benzalkonium chloride)

**▶** *sulfacetamide* ophthalmic solution and ointment (C)

**Bleph-10 Ophthalmic Solution** 1-2 drops to affected eye(s) q 2-3 hours during the day x 7-10 days

*Ophth soln:* 10% (2.5, 5, 15 ml) (benzalkonium chloride)

Bleph-10 Ophthalmic Ointment <2 years: not recommended; ≥2 years: apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) q 3-4 hours and HS x 7-10 days

Ophth oint: 10% (3.5 gm) (phenylmercuric acetate)

**Cetamide Ophthalmic Solution** <2 years: not recommended; ≥2 years: initially 1-2 drops to affected eye(s) q 2-3 hours; then increase dosing interval as condition improves

*Ophth soln:* 15% (5, 15 ml)

**Isopto Cetamide Ophthalmic Ointment** <2 years: not recommended; ≥2 years: initially 1/2 inch ribbon in lower conjunctival sac of affected eye(s) q 3-4 hours; then increase dosing interval as condition improves

Ophth oint: 10% (3.5 gm) Isopto Cetamide Ophthalmic Solution <2 years: not recommended;  $\geq$ 2 years: initially 1-2 drops to affected eye(s)q 2-3 hours; then increase dosing interval as condition improves

Ophth soln: 15% (5, 15 ml)

> tobramycin (B)

**Tobrex Ophthalmic Solution** 1-2 drops to affected eye(s) q 4 hours

Ophth soln: 0.3% (5 ml) (benzalkonium chloride)

**Tobrex Ophthalmic Ointment** apply 1/2 inch ribbon to the lower conjunctiva sac of affected eye(s) bid-tid

Ophth oint: 0.3% (3.5 gm) (chlorobutanol)

#### **OPHTHALMIC ANTI-INFECTIVE COMBINATIONS**

▶ *polymyxin b sulfate/bacitracin* ophthalmic ointment (C) apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) q 3-4 hours x 7-10 days

Polysporin Ophthalmic Ointment Ophth oint: poly b 10,000 U/bac 500 U (3.75 cm)

▶ polymyxin b sulfate/bacitracin zinc/neomycin sulfate ophthalmic ointment (C) apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) q 3-4 hours x 7-10 days

Neosporin Ophthalmic Ointment Ophth oint: poly b 10,000 U/bac 400 U/neo 3.5 mg/g (3.75 gm)

Polymyxin b sulfate/gramicidin/neomycin ophthalmic solution (C) <12 years: not recommended; ≥12 years: 1-2 drops to affected eye(s) q 1 hour x 2-3 doses; then 1-2 drops bid-qid x 7-10 days</p>

Neosporin Ophthalmic Solution Ophth soln: poly b 10,000 U/gram 0.025 mg/

neo 1.7 mg/g (10 ml)

trimethoprim/polymyxin b sulfate <2 years: not recommended; ≥2 years: ophthal-mic solution (C) 1 drop to affected eye(s)q 3 hours x 7-10 days; max 6 doses/day Polytrim Ophth soln: trim 1 mg/poly b 10,000 U/ml (10 ml) (benzalkonium chloride)
</p>

#### OPHTHALMIC ANTI-INFECTIVE/STEROID COMBINATIONS

Comment: Ophthalmic corticosteroids are contraindicated after removal of a corneal foreign body, epithelial herpes simplex keratitis, *varicella*, other viral infections of the cornea or conjunctiva, fungal ocular infections, and mycobacterial ocular infections. Limit ophthalmic steroid use to 2-3 days if possible; usual max 2 weeks. With prolonged or frequent use, there is risk of corneal and scleral thinning and cataract formation.

gentamicin sulfate/prednisolone acetate ophthalmic suspension (C)

Pred-G Ophthalmic Suspension <12 years: not recommended; ≥12 years: 1 drop to affected eye(s) bid-qid; max 20 ml/therapeutic course

Ophth susp: gent 0.3%/pred 1%/ml (2, 5, 10 ml) (benzalkonium chloride)

Pred-G Ophthalmic Ointment <12 years: not recommended; ≥12 years: apply

1/2 inch ribbon to the lower conjunctive see of affected eve(s) once deally tide

1/2 inch ribbon to the lower conjunctiva sac of affected eye(s) once daily-tid; max 8 gm/therapeutic course

Ophth oint: gent 0.3%/pred 0.6%/g (3.5 gm)

neomycin sulfate/polymyxin B sulfate/dexamethasone ophthalmic suspension (C)
 Maxitrol Ophthalmic Suspension <12 years: not recommended; ≥12 years: 1-2
 drops to affected eye(s) q 1 hour (severe infection) or qid (mild to moderate infection)
</p>

*Ophth susp: neo* 0.35%/*poly b* 10,000 U/*dexa* 1%/ml (5 ml) (benzalkonium chloride)

Maxitrol Ophthalmic Ointment <12 years: not recommended; ≥12 years: apply 1/2 inch ribbon to the lower conjunctiva sac of affected eye(s) q 1 hour (severe infection) or qid (mild to moderate infection)

*Ophth oint: neo* 0.35%/*poly b* 10,000 U/*dexa* 0.1%/g (3.5 gm)

neomycin sulfate/polymyxin B sulfate/prednisolone acetate ophthalmic suspension
 (C) <12 years: not recommended; ≥12 years: 1-2 drops to affected eye(s) q 3-4
 hours; more often as necessary; max 20 ml/therapeutic course
</p>

Poly-Pred Ophthalmic Suspension Ophth susp: neo 0.35%/poly b 10,000 U/pred 0.5%/ml (10 ml)

polymyxin B sulfate/neomycin sulfate/hydrocortisone ophthalmic suspension (C) 
 <12 years: not recommended; ≥12 years: 1-2 drops to affected eye(s) tid-qid; more often if necessary; max 20 ml/therapeutic course
</p>

Cortisporin Ophthalmic Suspension Ophth susp: poly b 10,000 U/neo 0.35%/ hydro 1%/ml (7.5 ml) (thimerosal)

polymyxin B sulfate/neomycin sulfate/bacitracin zinc/hydrocortisone ophthalmic ointment (C) < 12 years: not recommended; ≥12 years: apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) tid-qid; more often if necessary; max 8 gm/therapeutic course
</p>

Cortisporin Ophthalmic Ointment Ophth oint: poly b 10,000 U/neo 0.35%/bac 400 U/hydro 1%/g (3.5 gm)

sulfacetamide sodium/fluorometholone suspension (C) <12 years: not recommended; ≥12 years: 1 drop to affected eye(s) qid; max 20 ml/therapeutic course FML-S Ophth susp: sulfa 10%/fluoro 0.1%/ml (5, 10, 15 ml) (benzalkonium chloride)
</p>

Sulfacetamide sodium/prednisolone acetate ophthalmic suspension and ointment (C)
 Blephamide Liquifilm <6 years: not recommended; ≥6 years: 2 drops to affected
 eye(s) qid and HS
</p>

*Ophth susp: sulfa* 10%/*pred* 0.2%/ml (5, 10 ml) (benzalkonium chloride) **Blephamide S.O.P. Ophthalmic Ointment** <6 years: not recommended; ≥6 years: apply 1/2 inch ribbon to the lower conjunctival sac of affected eye(s) tid-qid

Ophth oint: sulfa 10%/pred 0.2%/g (3.5 gm) (benzalkonium chloride)

➤ sulfacetamide sodium/prednisolone sodium phosphate ophthalmic solution (C) <6
years: not recommended; ≥6 years: 2 drops to affected eye(s) q 4 hours

Vasocidin Ophthalmic Solution Ophth soln: sulfa 10%/pred 0.25%/ml (5, 10 ml)

► tobramycin/dexamethasone ophthalmic solution and ointment (C)

**TobraDex Ophthalmic Solution** <2 years: not recommended; ≥2 years: 1-2 drops q 4-6 hours; may start with 1-2 drops q 2 hours first 1-2 days; then 1-2 drops to affected eye(s) q 2-6 hours x 24-48 hours; then 4-6 hours; reduce frequency of dose as condition improves; max 20 ml per therapeutic course

Ophth susp: tobra 0.3%/dexa 0.1%/ml (2.5, 5 ml) (benzalkonium chloride)
TobraDex Ophthalmic Ointment <2 years: not recommended; ≥2 years: apply
1/2 inch ribbon to the lower conjunctival sac of affected eye(s) tid-qid; may use
at HS in conjunction with daytime drops; max 8 gm/therapeutic course

*Ophth oint: tobra* 0.3%/*dexa* 0.1%/g (3.5 gm) (chlorobutanol chloride) **TobraDex ST** <12 years: not recommended; ≥12 years: 1-2 drops to affected eye(s) q 2-6 hours x 24-48 hours; then 4-6 hours; reduce frequency of dose as condition improves; max 20 ml per therapeutic course

Ophth susp: tobra 0.3%/dexa 0.05%/ml (2.5, 5, 10 ml) (benzalkonium chloride)

tobramycin/loteprednol etabonate ophthalmic suspension (C) <12 years: not recommended; ≥12 years: 1-2 drops to affected eye(s) q 1-2 hours first 24-48 hours; reduce frequency of dose to q 4-6 hours as condition improves; max 20 ml per therapeutic course
</p>

Zvlet

Ophth susp: tobra 0.3%/lote etab 0.5%/ml (2.5, 5, 10 ml) (benzalkonium chloride)

#### **CONJUNCTIVITIS: CHLAMYDIAL**

Comment: A chlamydial etiology should be considered for all infants aged ≤30 days that have conjunctivitis, especially if the mother has a history of chlamydia infection. Topical antibiotic therapy alone is inadequate for treatment for ophthalmia neonatorum caused by chlamydia and is unnecessary when systemic treatment is administered.

#### ANTI-INFECTIVES

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 7 days or
 25-45 mg/kg/day in 2 divided doses x 7 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 7 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

#### RECOMMENDED 1ST LINE REGIMEN

ightharpoonup erythromycin base (B)(G) <45 kg: 50 mg/kg/day in 4 divided doses x 14 days; ≥45 kg: 250 mg qid x 14 days or 500 mg qid x 7 days

Ery-Tab *Tab*: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

> erythromycin ethylsuccinate (B)(G) 50 mg/kg/day in 4 divided doses x 14 days; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

#### ALTERNATE REGIMEN

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

### CONJUNCTIVITIS: FUNGAL

natamycin ophthalmic suspension (C) <1 year: not recommended; ≥1 year: 1 drop q 1-2 hours x 3-4 days; then 1 drop every 6 hours; treat for 14-21 days; withdraw dose gradually at 4- to 7-day intervals</p>

Natacyn Óphthalmic Suspension Ophth susp: 0.5% (15 ml) (benzalkonium chloride)

## CONJUNCTIVITIS: GONOCOCCAL

#### RECOMMENDED REGIMENS

#### Regimen 1

ceftriaxone (B)(G) <45 kg: 50 mg/kg IM x 1 dose; max 125 mg IM; ≥45 kg: 250 mg IM x 1 dose</p>

Rocephin Vial: 250, 500 mg; 1, 2 g

#### Regimen 2

erythromycin base (B)(G) <45 kg: 50 mg/kg/day in 4 divided doses x 10-14 days;
 ≥45 kg: 250 mg qid x 10-14 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

erythromycin ethylsuccinate (B)(G) 50 mg/kg/day in 4 divided doses x 7 days; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

#### ALTERNATE REGIMEN

azithromycin (B) <12 years: not recommended for bronchitis in children; ≥12 years: 500 mg x 1 dose on day 1; then 250 mg once daily on days; 2-5 or 500 mg daily x 3 days or 2 gm in a single dose</p>

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

### CONJUNCTIVITIS: VIRAL

**Comment:** For prevention of secondary bacterial infection, see agents listed under bacterial conjunctivitis. Ophthalmic corticosteroids are contraindicated with herpes simplex, keratitis, *Varicella*, and other viral infections of the cornea.

Viroptic Ophthalmic Solution Ophth soln: 1% (7.5 ml) (thimerosal)

### CONSTIPATION

#### CHRONIC IDIOPATHIC CONSTIPATION (CIC)

- ▶ lubiprostone (chloride channel activator [GI motility enhancer]) (C) <12 years: not recommended; ≥12 years: 1 cap bid with food Amitiza Cap: 24 mcg
- ▶ linaclotide (guanylate cyclase-c agonist) (C) <6 years: not recommended; 6-17 years: avoid; >17 years: 290 mcg once daily; take on an empty stomach at least 30 minutes before the first meal of the day; swallow whole

Linzess Cap: 145, 290 mcg

#### **BULK-FORMING AGENTS**

calcium polycarbophil (C)

FiberCon (OTC) <6 years: not recommended; 6-12 years: 1 tab daily to qid; >12 years: 2 tabs once daily-qid

*Cplt*: 625 mg

Konsyl Fiber Tablets (OTC) Tab: 625 mg

methylcellulose

Citrucel <6 years: not recommended; 6-12 years: 1/2 heaping tbsp in 4 oz cold water; >12 years: 1 heaping tbsp in 8 oz cold water tid

Oral pwdr: 16, 24, 30 oz and single-dose pkts (orange)

Citrucel Sugar-Free <6 years: not recommended; 6-12 years: 1 level tbsp in 4 oz cold water; >12 years: 1 heaping tbsp in 8 oz cold water tid

Oral pwdr: 16, 24, 30 oz and single-dose pkts (orange) (sugar-free, phenylalanine)

> psyllium husk (B) <6 years: not recommended; 6-12 years: 1/2 wafer, cap, or pkt in 8 oz liquid tid; >12 years: wafer or cap or 1 pkt or 1 rounded tsp (1 rounded tbsp for sugar-containing form) in 8 oz liquid tid

#### Metamucil (OTC)

Cap: psyllium husk 5.2 gm (100, 150/carton); Wafer: psyllium husk 3.4 gm/rounded tsp (24/carton) (apple crisp, cinnamon spice); Plain and flavored pwdr: 3.4 g/rounded tsp (15, 20, 24, 29, 30, 36, 44, 48 oz); Efferv sugar-free flav pkts: 3.4 g/pkt (30/pkt) (phenylalanine)

> psyllium hydrophilic mucilloid (B) <6 years: not recommended; 6-12 years: 1 rounded tsp in 8 oz liquid tid; >12 years: 2 rounded tsp in 8 oz water qid

Konsyl (OTC) Pwdr: 6 gm/rounded tsp (10.6, 15.9 oz); Pwdr pkt: 6 gm/rounded tsp (30/carton)

Konsyl-D (OTC) Pwdr: 3.4 gm/rounded tsp (11.5, 17.59 oz); Pwdr pkt: 3.4 gm/rounded tsp (30/carton)

Konsyl Easy Mix Formula (OTC) Pwdr: 3.4 gm/rounded tsp (8 oz) (sugar-free, low sodium)

Konsyl Orange (OTC) Pwdr: 3.4 gm/rounded tsp (19 oz); Pwdr pkt: 3.4 gm/rounded tsp (30/carton)

**Konsyl Orange SF (OTC)** *Pwdr:* 3.5 gm/rounded tsp (15 oz) (phenylalanine); *Pwdr pkt:* 3.5 gm/rounded tsp (30/carton) (phenylalanine)

#### STOOL SOFTENERS

docusate sodium (OTC) <3 years: 10-40 mg/day; 3-6 years: 20-60 mg/day; >6-12 years: 40-120 mg/day; >12 years: 50-200 mg/day

*Cap*: 50, 100 mg; *Liq*: 10 mg/ml (30 ml w. dropper); *Syr*: 20 mg/5 ml (8 oz) (alcohol ≤1%)

**Dialose** 6 years: not recommended; ≥6 years: 1 tab q HS

Tab: 100 mg

Surfak (OTC) 12 years: not recommended; ≥12 years: 240 mg/day

Cap: 240 mg

#### OSMOTIC LAXATIVES

▶ lactulose (B)(G) 6 years: not recommended; ≥6 years: take 10-20 gm dissolved in 4 oz water once daily prn; max 40 gm/day

Kristalose Crystals for oral soln: 10, 20 gm single-dose pkts (30/carton)

magnesium citrate (B)(G) <2 years: not recommended; 2-6 years: 4-12 ml once daily prn; ≥6-12 years: 50-100 ml once daily prn; >12 years: 1 full bottle (120-300 ml) once daily prn

Citrate of Magnesia (OTC) Oral soln: 300 ml

magnesium hydroxide (B) <2 years: not recommended; 2-5 years: 5-15 ml/day in a single or divided doses; 6-11 years: 15-30 ml/day in a single or divided doses; >11 years: 30-60 ml/day in a single or divided doses prn

Milk of Magnesia Liq: 390 mg/5 ml (10, 15, 20, 30, 100, 120, 180, 360, 720 ml)

→ polyethylene glycol (PEG) (C)(OTC)(G) ≤17: not recommended; >17 years: 1 tbsp
(17 gm) dissolved in 4-8 oz water per day for up to max 7 days; may need 2-4 days for results

**GlycoLax Powder for Oral Solution** *Oral pwdr:* 7, 14, 30, and 45 dose bottles w. 17 gm dosing cup (gluten-free, sugar-free); 17 gm single-dose pkts (20/carton)

MiraLAX Powder for Oral Solution *Oral pwdr*: 7, 14, 30, and 45 dose bottles w. 17 gm dosing cup (gluten-free, sugar-free)

Polyethylene Glycol 3350 Powder for Oral Solution (G) Oral pwdr: 3350 gm w. dosing cup; 17 gm/scoop

Comment: *PEG* is an osmotic indicated for occasional constipation without affecting glucose and electrolyte levels. Contraindicated with suspected <u>or</u> known bowel obstruction

#### STIMULANTS

bisacodyl (B)(OTC) 2-3 tabs or 1 suppository bid prn

**Dulcolax, Gentlax** <12 years: 1/2 suppository once daily prn; 6-12 years: 1 tablet or 1/2 suppository once daily prn; >12 years: 1 tab or 1 rectal suppository

Tab: 5 mg; Rectal supp: 10 mg Senokot <2 years: not recommended; 2-6 years: 1/4 tab or 1/2 tsp once daily prn; max 1 tab or 1/2 tsp bid; 6-12 years: 1 tab or 1/2 tsp once daily prn; max 2 tabs or 1 tsp once daily; >12 years: initially 2-4 tabs or 1 level tsp at HS prn; max 4 tabs or 2 tsp bid

*Tab*: 8.6\*mg; *Granules*: 15 mg/tsp (2, 6, 12 oz) (cocoa)

Senokot Syrup <12 years: use Children's Syrup; ≥12 years: initially 10-15 ml at HS prn; max 15 ml bid

Syr: 8.8 mg/5 ml (2, 8 oz) (chocolate) (alcohol-free)

Senokot Children's Syrup (OTC) <2 years: not recommended; 2-6 years: 2.5-3.75 ml once daily prn; max 3.75 ml bid prn; ≥6-12 years: 5-7.5 ml once daily prn; max 7.5 ml bid

Syr: 8.8 mg/5 ml (2.5 oz) (chocolate) (alcohol-free)

Senokot Xtra (OTC) <2 years: not recommended; 2-6 years: use Children's Syrup; 6-12 years: 1/2 tab once daily at HS; max 1 tab bid; >12 years: 1 tab at HS prn; max 2 tabs bid

Tab: 17\*mg

#### **BULK-FORMING AGENT/STIMULANT COMBINATIONS**

> psyllium/senna (B)

Perdiem (OTC) <7 years: not recommended; 7-11 years: 1 rounded tsp swallowed with 8 oz cool liquid qd-bid; >11 years: 1-2 rounded tsp swallowed with 8 oz cool liquid daily bid

Canister: 8.8, 14 oz; Individual pkt: 6 gm (6/pck)

SennaPrompt (OTC) <12 years: not recommended; ≥12 years: initially 2-5 caps bid

Cap: psyl 500 mg/senna 9 mg

#### STOOL SOFTENER/STIMULANT COMBINATIONS

► docusate/casanthranol (C)

Doxidan (OTC) <2 years: not recommended; ≥2 years-12 years: 1 cap/day; >12 years: 1-3 caps/day; max 1 week

Cap: doc 60 mg/cas 30 mg

Peri-Colace (OTC) <12 years: 5-15 ml q HS; ≥12 years: 1-2 caps or 15-30 ml q HS; max 2 caps or 30 ml bid or 3 caps q HS

Cap: doc 100 mg/cas 30 mg; Syr: doc 60 mg/cas 30 mg per 15 ml (8, 16 oz)

→ docusate/senna concentrate (C)

Senokot S (OTC) <2 years: not recommended; 2-6 years: 1/2 tab daily; max 1 tab bid; >6-12 years: 1 tab daily; max 2 tabs bid; >12 years: 2 tabs q HS; max 4 tabs bid

Tab: doc 50 mg/senna 8.6 mg

#### **ENEMAS AND OTHER AGENTS**

> sodium biphosphate/sodium phosphate enema (C)(OTC)

Fleets Adult <2 years: not recommended; 2-12 years: 59 ml rectally; >12 years: 59-118 ml rectally

Enema: Na biphos 19 gm/Na phos 7 gm (59, 118 ml w. applicator)

Fleets Pediatric <12 years: 59 ml rectally; ≥12 years: use Fleets Adult Enema: sod biphos 19 gm/sod phos 7 gm (59 ml w. applicator)

### CORNEAL EDEMA

**▶** sodium chloride (NE)(G)

Various (OTC) 1-2 drops or 1 inch ribbon q 3-4 hours prn; reduce frequency as edema subsides

Ophth soln: 2, 5% (15, 30 ml); Ophth oint: 5% (3.5 gm)

### CORNEAL ULCERATION

#### ANTIBACTERIAL OPHTHALMIC SOLUTION/OINTMENT

see Conjunctivitis/Blepharoconjunctivitis: Bacterial page 81

## COSTOCHONDRITIS (CHEST WALL SYNDROME)

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490

Other Oral Analgesics see Pain page 298

Topical/Transdermal NSAIDs see Pain page 298

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

Topical Analgesic and Anesthetic Agents see page 488

### CRAMPS: ABDOMINAL, INTESTINAL

#### ANTISPASMODIC/ANTICHOLINERGIC COMBINATIONS

 dicyclomine (B)(G) <12 years: not recommended; ≥12 years: initially 20 mg bidqid; may increase to 40 mg qid PO; usual IM dose 80 mg/day divided qid; do not use IM route for more than 1-2 days Bentyl Tab: 20 mg; Cap: 10 mg; Syr: 10 mg/5 ml (16 oz); Vial: 10 mg/ml (10 ml); Amp: 10 mg/ml (2 ml)

methscopolamine bromide (B) <12 years: not recommended; ≥12 years: 1 tab q 6 hours prn
</p>

Pamine *Tab*: 2.5 mg Pamine Forte *Tab*: 5 mg

#### **ANTICHOLINERGICS**

► hyoscyamine (C)(G)

Anaspaz <2 years: not recommended; 2-12 years: 0.0625-0.125 mg q 4 hours prn; max 0.75 mg/day; >12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day *Tab*: 0.125\*mg

Levbid <12 years: not recommended; ≥12 years: 1-2 tabs q 12 hours prn; max 4 tabs/day

Tab: 0.375\*mg ext-rel

Levsin <6 years: not recommended; ≥6-12 years: 1 tab q 4 hours prn; >12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day

Tab: 0.125\*mg

Levsinex SL <2 years: not recommended; 2-12 years: 1 tab SL or PO q 4 hours; max 6 tabs/day; >12 years: 1-2 tabs q 4 hours SL or PO; max 12 tabs/day

Tab: 0.125 mg sublingual

Levsinex Timecaps <2 years: not recommended; 2-12 years: 1 cap q 12 hours; max 2 caps/day; >12 years; 1-2 caps q 12 hours; may adjust to 1 cap q 8 hours *Cap*: 0.375 mg time-rel

NuLev <2 years: not recommended; 2-12 years: dissolve 1 tab on tongue, with or without water, q 4 hours prn; max 6 tabs/day; >12 years: dissolve 1-2 tabs on tongue, with or without water, q 4 hours prn; max 12 tabs/day

ODT: 0.125 mg (mint) (phenylalanine)

➤ simethicone (C)(G) 0.3 ml qid pc and HS

Mylicon Drops (OTC) Oral drops: 40 mg/0.6 ml (30 ml)

▶ phenobarbital/hyoscyamine/atropine/scopolamine (C)(IV)(G)

Donnatal <12 years: not recommended; ≥12 years: 1-2 tabs ac and HS

Tab: pheno 16.2 mg/hyo 0.1037 mg/atro 0.0194 mg/scop 0.0065 mg

**Donnatal Elixir** 20 lb: 1 ml q 4 hours or 1.5 ml q 6 hours; 30 lb: 1.5 ml q 4 hours or 2 ml q 6 hours; 50 lb: 1/2 tsp q 4 hours or 3/4 tsp q 6 hours; 75 lb: 3/4 tsp q 4 hours or 1 tsp q 6 hours; 100 lb: 1 tsp q 4 hours or 1 tsp q 6 hours;  $\geq 12$  years: 1-2 tsp ac and HS

Elix: pheno 16.2 mg/hyo 0.1037 mg/atro 0.0194 mg/scop 0.0065 mg per 5 ml (4.16 oz)

Donnatal Extentabs <12 years: not recommended; ≥12 years: 1 tab q 12 hours Tab: pheno 48.6 mg/hyo 0.3111 mg/atro 0.0582 mg/scop 0.0195 mg ext-rel

#### ANTICHOLINERGIC/SEDATIVE COMBINATION

chlordiazepoxide/clidinium (D)(IV) <12 years: not recommended; ≥12 years: 1-2 caps ac and HS; max 8 caps/day</p>

Librax Cap: chlor 5 mg/clid 2.5 mg



### **CROHN'S DISEASE**

Comment: Standard treatment regimen for active disease (flare) is: antibiotic, antispasmodic, and bowel rest; progress to clear liquids; then progress to high-fiber diet

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

azathioprine (D)(G)

Imuran Tab: 50\*mg; Injectable: 100 mg

Comment: Imuran is usually administered on a daily basis. The initial dose should be approximately 1.0 mg/kg (50 to 100 mg) as a single dose or divided bid. Dose may be increased beginning at 6-8 weeks, and thereafter at 4-week intervals, if there are no serious toxicities and if initial response is unsatisfactory. Dose increments should be 0.5 mg/kg/day, up to max 2.5 mg/kg per day. Therapeutic response usually occurs after 6-8 weeks of treatment. An adequate trial should be a minimum of 12 weeks. Patients not improved after 12 weeks can be considered refractory. Imuran may be continued long-term in patients with clinical response, but patients should be monitored carefully, and gradual dosage reduction should be attempted to reduce risk of toxicities. Maintenance therapy should be at the lowest effective dose, and the dose given can be lowered decrementally with changes of 0.5 mg/kg or approximately 25 mg daily every 4 weeks while other therapy is kept constant. The optimum duration of maintenance Imuran has not been determined. Imuran can be discontinued abruptly, but delayed effects are possible.

infliximab (tumor necrosis factor-alpha blocker) (B) <12 years: not recommended; ≥12 years: administer 5 mg/kg/dose by IV infusion over at least 2 h; Fistulizing disease: initial dose; repeat dose at 2 weeks and 6 weeks (total 3 doses); then repeat dose every 8 weeks; Maintenance: usually 5 mg/kg/dose every 8 weeks; may increase to 10 mg/kg/dose

Remicade Vial: 100 mg pwdr for IV infusion single use (preservative-free)

mesalamine (B)

Asacol <12 years: not recommended; ≥12 years: 800 mg tid x 6 weeks; maintenance 1.6 gm/day in divided doses; swallow whole, do not crush <u>or</u> chew *Tab*: 400 mg del-rel

Comment: 2 Asacol 400 mg tabs are not bioequivalent to 1 Asacol HD 800 mg tab.

**Asacol HD** <12 years: not recommended;  $\geq$ 12 years: 1,600 mg tid x 6 weeks; swallow whole, do not crush or chew

Tab: 800 mg del-rel

Comment: 1 Asacol HD 800 mg tab is not bioequivalent to 2 Asacol 400 mg tabs

Canasa <12 years: not established; ≥12 years: 1 gm qid for up to 8 weeks Rectal supp: 1 gm del-rel (30, 42/pck)

Delzicol <5 years: not established; >5 years: *Treatment*: 800 mg tid x 6 weeks; maintenance 1.6 gm/day in 2-4 divided doses daily; swallow whole; do not crush or chew

Cap: 400 mg del-rel

Comment: 2 Delzicol 400 mg caps are not bioequivalent to 1 *mesalamine* 800 mg del-rel tab

Lialda <18 years: not established; ≥18 years: 2.4-4.8 gm daily in a single dose for up to 8 weeks; swallow whole, do not crush or chew

Tab: 1.2 gm del-rel

Pentasa <12 years: not established; ≥12 years: 1 gm qid for up to 8 weeks; swallow whole, do not crush or chew

Cap: 250 mg cont-rel

Rowasa Enema <12 years: not established; ≥12 years: 4 gm rectally by enema q HS; retain for 8 hours x 3-6 weeks

Enema: 4 gm/60 ml (7, 14, 28/pck; kit, 7, 14, 28/pck w. wipes)

Rowasa Suppository <12 years: not established; ≥12 years: 1 suppository rectally bid x 3-6 weeks; retain for 1-3 hours or longer

Rectal supp: 500 mg

Sulfite-Free Rowasa Rectal Suspension <12 years: not established; ≥12 years: 4 gm rectally by enema q HS; retain for 8 hours x 3-6 weeks

Enema: 4 gm/60 ml (7, 14, 28/pck; kit, 7, 14, 28/pck w. wipes)

olsalazine (C)

**Dipentum** <12 years: not established; ≥12 years: 1 gm/day in 2 divided doses; max 2 gm/day

Cap: 250 mg

Comment: Indicated in persons who cannot tolerate *sulfasalazine*.

**>** sulfasalazine (B)(G)

Azulfidine <2 years: not recommended; 2-16 years: initially 40-60 mg/kg/day in 3-6 divided doses; max 2 gm/day; >16 years: initially 1-2 gm/day; increase to 3-4 gm/day in divided doses pc until clinical symptoms controlled; maintenance 2 gm/day; max 4 gm/day

Tab: 500\*mg

Azulfidine EN <2 years: not recommended; 2-16 years: initially 40-60 mg/kg/day in 3-6 divided doses; max 2 gm/day; >16 years: initially 500 mg in the PM x 7 days; then 500 mg bid x 7 days; then 500 mg in the AM and 1 gm in the PM x 7 days; then 1 gm bid; max 4 gm/day

Tab: 500 mg ent-coat

vedolizumab (B) <2 years: not recommended; 2-16 years: initially 40-60 mg/kg/day in 3-6 divided doses; max 2 gm/day; >16 years: administer by IV infusion over 30 minutes; 300 mg at weeks 0, 2, 6; then once every 8 weeks

Entyvio Vial: 300 mg (20 ml) single dose, pwdr for IV infusion after reconstitution (preservative-free)

budesonide micronized (C)(G) <12 years: not established; ≥12 years: Treatment 9 mg once daily in the AM for up to 8 weeks; may repeat an 8-week course; Maintenance of remission: 6 mg once daily for up to 3 months</p>

Entocort EC Cap: 3 mg ent-coat ext-rel granules

Comment: Taper other systemic steroids when transferring to Entocort EC. When corticosteroids are used chronically, systemic effects such as hypercorticism and adrenal suppression may occur. Corticosteroids can reduce the response of the hypothalamus-pituitary-adrenal (HPA) axis to stress. In situations where patients are subject to surgery or other stress situations, supplementation with a systemic corticosteroid is recommended. General precautions concerning corticosteroids should be followed.

#### ORAL ANTI-INFECTIVES

metronidazole (not for use in 1st; B in 2nd, 3rd)(G) <12 years: 35-50 mg/kg/day in
 3 divided doses x 10 days; ≥12 years: 500 mg tid or 750 mg bid; max 8 weeks
</p>

Flagyl Tab: 250\*, 500\*mg

Flagyl 375 Cap: 375 mg

Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

#### TUMOR NECROSIS FACTOR (TNF) BLOCKER

■ adalimumab (B) <2 years, <10 kg: not recommended; 10-<15 kg: 10 mg every other week; 15-<30 kg: 20 mg every other week; ≥30 kg: 40 mg every other week; 2-17 years, supervise first dose; ≥12 years: 40 mg SC once every other week; may increase to once weekly without MTX; administer in abdomen or thigh; rotate sites Humira Prefilled syringe: 20 mg/0.4 ml; 40 mg/0.8 ml single dose (2/pck; 2, 6/starter pck) (preservative-free)</p>

Comment: May use with methotrexate (MTX), DMARDs, corticosteroids, salicylates, NSAIDs, or analgesics.

certolizumab (B) <12 years: not established; ≥12 years: 400 mg SC (2 x 200 mg inj at two different sites on day 1); then, 400 mg SC at weeks 2 and 4; maintenance 400 mg SC every 4 weeks; administer in abdomen or thigh; rotate sites</p>

Cimzia Vial: 200 mg (2/pck); Prefilled syringe: 200 mg/ml single dose (2/pck; 2, 6/starter pck) (preservative-free)

infliximab (B) <6 years: not recommended; ≥6 years: administer by IV infusion over 2 hours; 5 mg/kg weeks 0, 2, 6; then once every 8 weeks</p>

Remicade

*Vial*: 100 mg pwdr for reconstitution for IV infusion (preservative-free)

vedolizumab (B) <6 years: not recommended; ≥6 years: administer by IV infusion over 30 minutes; 300 mg at weeks 0, 2, 6; then 300 mg once every 8 weeks Entyvio</p>

*Vial*: 300 mg (20 ml) single dose, pwdr for IV infusion after reconstitution (preservative-free)

#### INTEGRIN RECEPTOR ANTAGONIST (IMMUNOMODULATOR)

natalizumab (C) <6 years: not established; ≥6 years: administer by IV infusion over 1 hour; monitor during and for 1 hour post infusion; 300 mg every 4 weeks; discontinue after 12 weeks if no therapeutic response, or if unable to taper off chronic concomitant steroids within 6 months; may continue aminosalicylates</p>

Tysabri Vial: 300 mg single-dose, soln after dilution for IV infusion (preservative-free)

### CRYPTOSPORIDIUM PARVUM

initazoxanide (B) <12 months: not recommended; 12-47 months: 5 ml q 12 hours x 3 days; 4-11 years: 10 ml q 12 hours x 3 days; ≥12 years: 500 mg by mouth q 12 hours x 3 days</p>

Alinia Oral susp: 100 mg/5 ml (60 ml)

Comment: Alinia is an antiprotozoal for the treatment of diarrhea due to

G. lamblia or C. parvum.



acetylcysteine (B)(G) administer via face mask, mouth piece, tracheostomy T-piece, mist tent, or croupette; routine tracheostomy care, 1 to 2 ml of a 10% to 20% solution may be administered by direct instillation into the tracheostomy every 1 to 4 hours

Mucomyst Vial: 10, 20% (4, 10, 30 ml) soln for inhalation

**Comment:** Mucomyst is a mucolytic. For inhalation, the 10% concentration may be used undiluted; the 20% concentration should be diluted with sterile water <u>or</u> normal saline (either for injection <u>or</u> inhalation).

Iumacaftor/ivacaftor (B) <12 years: not established; ≥12 years: 2 tabs q 12 hours; reduce dose with moderate to severe hepatic impairment</p>

Orkambi Tab: luma 200 mg/iva 125 mg film-coat

## CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR (CFTR) POTENTIATOR

ivacaftor (B) <6 years: not established; ≥6 years: 150 mg every 12 hours; administer with fat-containing food (e.g., eggs, butter, peanut butter, cheese pizza); avoid food containing grapefruit or Seville oranges.</p>

Kalydeco Tab: 150 mg film-coat

Comment: Kalydeco is indicated for the treatment of CF in patients who have a G551D comutation in the CFTR gene. If the patient's genotype is unknown, an FDA-cleared CF mutation test should be used to detect the presence of the G551D mutation. Kalydeco is not effective in patients with CF who are homozygous for the F508del mutation in the CFTR gene. Transaminases (ALT and AST) should be assessed prior to initiating Kalydeco, every 3 months during the first year of treatment, and annually thereafter. Patients who develop increased transaminase levels should be closely monitored until the abnormalities resolve. Dosing should be interrupted in patients with ALT or AST greater than 5 times the upper limit of normal (ULN). Following resolution of transaminase elevations, consider the benefits and risks of resuming **Kalydeco** dosing. Concomitant use with strong CYP3A inducers (e.g., *rifampin*, St. John's Wort) substantially decreases exposure of Kalydeco (which may diminish effectiveness); therefore, co-administration is not recommended. Reduce dose to 150 mg twice weekly when co-administered with strong CYP3A inhibitors (e.g., ketoconazole). Reduce dose to 150 mg once daily when co-administered with moderate CYP3A inhibitors. Caution is recommended in patients with severe renal impairment (CrCl <30 mL/min) or ESRD. No dose adjustment is necessary for patients with mild hepatic impairment (Child-Pugh Class A). A reduced dose of 150 mg once daily is recommended in patients with moderate hepatic impairment (Child-Pugh Class B). No studies have been conducted in patients with severe hepatic impairment (Child-Pugh Class C). The most commonly reported adverse reactions are headache, sore throat, nasopharyngitis, URI, nasal congestion, abdominal pain, nausea, diarrhea, dizziness, and rash. Excretion of Kalydeco into human milk is probable. To report

suspected adverse reactions, contact Vertex Pharmaceuticals Incorporated at 1-877-752-5933 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

#### ANTI-INFECTIVE

ciprofloxacin (C) <18 years: 20-40 mg/kg/day divided q 12 hours; ≥18 years: 500 mg bid x 7-10 days; max 1.5 gm/day
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel ProQuin XR Tab: 500 mg ext-rel

### DEEP VEIN THROMBOSIS (DVT)

Anticoagulation Therapy see page 515

### DEHYDRATION

#### ORAL REHYDRATION AND ELECTROLYTE REPLACEMENT THERAPY

> oral electrolyte replacement (NE)(OTC)(G)

**KaoLectrolyte** <12 years: not indicated; ≥12 years: 1 pkt dissolved in 8 oz water q 3-4 hours

Pkt: sod 12 mEq/pot 5 mEq/chlor 10 mEq/citrate 7 mEq/dextrose 5 gm/calories 22 per 6.2 g

Pedialyte <2 years: as desired and as tolerated; ≥2 years: 1-2 liters/day

Oral soln: dextrose 20 gm/fructose 5 gm/sodium 25 mEq/potassium 20 mEq/
chloride 35 mEq/citrate 30 mEq/calories 100 per liter (8 oz, 1 L)

Pedialyte Freezer Pops as desired and as tolerated

Pops: dextrose 1.6 gm/sodium 2.8 mEq/potassium 1.25 mEq/chloride 2.2 mEq/citrate 1.88 mEq/calories 6.25 per 62.5 ml (2.1 fl oz) pop

### DENTAL ABSCESS

amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

Oral susp: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms; ≥16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

clindamycin(B)(G) <12 years: 8-16 mg/kg/day in 3-4 divided doses x 10 days; see page 559 for dose by weight table; administer with TMP-SMX; ≥12 years: 300 mg qid x 10 days; administer with fluoroquinolone

Cleocin Cap: 75 (tartrazine), 150 (tartrazine), 300 mg

Cleocin Pediatric Granules Oral susp: 75 mg/5 ml (100 ml) (cherry)

erythromycin base (B)(G) <45 kg: 50 mg/kg/day in 4 divided doses x 10-14 days;
 ≥45 kg: 500 mg q 6 hours x 10 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

Penicillin V potassium (B) <12 years: 25-75 mg/kg day divided q 6-8 hours x 5-7 days; see page 572 for dose by weight table; ≥12 years: 250-500 mg q 6 hours x 5-7 days
</p>

Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml(100, 150, 200 ml)

### **DEPRESSION, MAJOR DEPRESSIVE DISORDER (MDD)**

Comment: Abrupt withdrawal or interruption of treatment with an antidepressant medication is sometimes associated with an antidepressant discontinuation syndrome which may be mediated by gradually tapering the drug over a period of two weeks or longer, depending on the dose strength and length of treatment. Common symptoms of antidepressant withdrawal include flu-like symptoms, insomnia, nausea, imbalance, sensory disturbances, and hyperarousal. These medications include SSRIs, TCAs, MAOIs, and atypical agents such as venlafaxine (Effexor), mirtazapine (Remeron), trazodone (Desyrel), and duloxetine (Cymbalta). Common symptoms of the serotonin discontinuation syndrome include flu-like symptoms (nausea, vomiting, diarrhea, headaches, sweating), sleep disturbances (insomnia, nightmares, constant sleepiness), mood disturbances (dysphoria, anxiety, agitation), cognitive disturbances (mental confusion, hyperarousal), sensory and movement disturbances (imbalance, tremors, vertigo, dizziness, electric-shock-like sensations in the brain, often described by sufferers as "brain zaps").

#### SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

Comment: Co-administration of SSRIs with TCAs requires extreme caution. Concomitant use of MAOIs and SSRIs is absolutely contraindicated. Avoid St. John's wort and other serotonergic agents. A potentially fatal adverse event is *serotonin syndrome*, caused by serotonin excess. Milder symptoms require HCP intervention to avert severe symptoms that can be rapidly fatal without urgent/emergent medical care.

Symptoms include restlessness, agitation, confusion, tachycardia, hypertension, dilated pupils, muscle twitching, muscle rigidity, loss of muscle coordination, diaphoresis, diarrhea, headache, shivering, piloerection, hyperpyrexia, cardiac arrhythmias, seizures, loss of consciousness, coma, death. Common symptoms of the *serotonin discontinuation syndrome* include flu-like symptoms (nausea, vomiting, diarrhea, headaches, sweating), sleep disturbances (insomnia, nightmares, constant sleepiness), mood disturbances (dysphoria, anxiety, agitation), cognitive disturbances (mental confusion, hyperarousal, hallucinations), sensory and movement disturbances (imbalance, tremors, vertigo, dizziness, electric-shock-like sensations in the brain, often described by sufferers as "brain zaps").

- citalopram (C)(G) <12 years: not recommended; ≥12 years: initially 20 mg once daily; may increase after one week to 40 mg once daily; max 40 mg</p>
  Celexa Tab: 10, 20, 40 mg; Oral soln: 10 mg/5 ml (120 ml) (pepper mint) (sugar-free, alcohol-free, parabens)
- escitalopram (C)(G) <12 years: not recommended; 12-17 years: initially 10 mg daily; may increase to 20 mg daily after 3 weeks; >17 years: initially 10 mg daily; may increase to 20 mg daily after 1 week; Hepatic impairment: 10 mg once daily Lexapro Tab: 5, 10\*, 20\*mg

Lexapro Oral Solution Oral soln: 1 mg/ml (240 ml) (peppermint) (parabens)

▶ fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10 mg/day; may increase after 1 week to 20 mg/day; range 20-60 mg/day; range for lower weight children, 20-30 mg/day; >17 years: initially 20 mg daily; may increase after 1 week; doses >20 mg/day should be divided into AM and noon doses; max 80 mg/day Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint)
Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxe-

**Prozac Weekly** <12 years: not recommended; ≥12 years: following daily *fluoxe-tine* therapy at 20 mg/day for 13 weeks, may initiate **Prozac Weekly** 7 days after the last 20 mg *fluoxetine* dose

Cap: 90 mg ent-coat del-rel pellets

levomilnacipran (C) <12 years: not recommended; ≥12 years: swallow whole; initially 20 mg once daily for 2 days; then increase to 40 mg once daily; may increase dose in 40 mg increments at intervals of ≥2 days; max 120 mg once daily; CrCl 30-59 mL/min: max 80 mg once daily; CrCl 15-29 mL/min: max 40 mg once daily Fetzima Cap: 20, 40, 80, 120 mg ext-rel</p>

#### paroxetine maleate (D)(G)

Paxil <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day *Tab*: 10\*, 20\*, 30, 40 mg

Paxil CR <12 years: not recommended; ≥12 years: initially 25 mg daily in AM; may increase by 12.5 mg at weekly intervals as needed; max 62.5 mg/day *Tab*: 12.5, 25, 37.5 mg cont-rel ent-coat

Paxil Suspension <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day *Oral susp*: 10 mg/5 ml (250 ml) (orange)

Sertraline (C)(G) <6 years: not recommended; 6-<12 years: initially 25 mg daily; max 200 mg/day; 12-17 years: initially 50 mg daily; max 200 mg/day >17 years: initially 50 mg daily; increase at 1 week intervals if needed; max 200 mg daily; dilute oral concentrate immediately prior to administration in 4 oz water, ginger ale, lemon/lime soda, lemonade, or orange juice

**Zoloft** *Tab*: 25\*, 50\*, 100\*mg; *Oral conc*: 20 mg per ml (60 ml) (alcohol 12%)

#### SEROTONIN AND NOREPINEPHRINE REUPTAKE INHIBITORS (SNRIs)

desvenlafaxine (C)(G) <18 years: not recommended; ≥18 years: swallow whole; initially 50 mg once daily; max 120 mg/day
</p>

Pristiq Tab: 50, 100 mg ext-rel

duloxetine (C)(G) <12 years: not recommended; ≥12 years: swallow whole; initially 30 mg once daily x 1 week; then, increase to 60 mg once daily; max 120 mg/day</p>

Cymbalta Cap: 20, 30, 40, 60 mg del-rel

▶ venlafaxine (C)(G)

Effexor initially <12 years: not recommended; ≥12 years: 75 mg/day in 2-3 divided doses; may increase at 4 day intervals in 75 mg increments to 150 mg/day; max 225 mg/day

Tab: 37.5, 75, 150, 225 mg

Effexor XR <18 years: not recommended; ≥18 years: initially 75 mg q AM; may start at 37.5 mg daily x 4-7 days, then increase by increments of up to 75 mg/day at intervals of at least 4 days; usual max 375 mg/day

Tab/Cap: 37.5, 75, 150 mg ext-rel

vortioxetine (C) <18 years: not established; ≥18 years: initially 10 mg once daily; max 30 mg/day</p>

Brintellix Tab: 5, 10, 15, 20 mg

## SELECTIVE SEROTONIN REUPTAKE INHIBITOR (SSRI)/5-HT-14 RECEPTOR PARTIAL AGONIST COMBINATION

vilazodone (C) <18 years: not established; ≥18 years: take with food; initially 10 mg once daily x 7 days; then, 20 mg once daily x 7 days; then, 40 mg once daily Viibryd Tab: 10, 20, 40 mg</p>

#### THIENOBENZODIAZEPINE/SSRI COMBINATION

Description of the PM; cap in the PM

Symbyax

Cap: Symbyax 3/25: olan 3 mg/fluo 25 mg Symbyax 6/25: olan 6 mg/fluo 25 mg Symbyax 6/50: olan 6 mg/fluo 50 mg Symbyax 12/25: olan 12 mg/fluo 25 mg Symbyax 12/50: olan 12 mg/fluo 50 mg

Comment: Symbyax is a thienobenzodiazepine-SSRI indicated for the treatment of depressive episodes associated with bipolar depression disorder and treatment resistant depression (TRD).

#### TRICYCLIC ANTIDEPRESSANTS (TCAs)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

⇒ amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS

Tab: 10, 25, 50, 75, 100, 150 mg

amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid;
 after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if
 total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as
 a single bedtime dose (max 300 mg q HS)
</p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

**Anafranil** *Cap*: 25, 50, 75 mg

desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

- ightharpoonup imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg Cap: 75, 100, 125, 150 mg

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid-qid; max 150 mg/day</p>

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

- protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
   Vivactil Tab: 5, 10 mg
  </p>
- trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
  </p>

Surmontil Cap: 25, 50, 100 mg

#### **AMINOKETONES**

**▶** bupropion HBr (C)(G)

Aplenzin <18 years: not recommended; ≥18 years: initially 100 mg bid for at least 3 days; may increase to 375 or 400 mg/day after several weeks; then after at least 3 more days, 450 mg in 4 divided doses; max 450 mg/day, 174 mg/single dose

Tab: 174, 348, 522 mg

Forfivo XL <18 years: not recommended; ≥18 years: do not use for initial treatment; use immediate-release bupropion forms for initial titration; switch to Forfivo XL 450 mg once daily when total dose/day reaches 450 mg; may switch to Forfivo XL when total dose/day reaches 300 mg for 2 weeks and patient needs 450 mg/day to reach therapeutic target; swallow whole, do not crush or chew Tab: 450 mg ext-rel

**▶** bupropion HCl (C)(G)

Wellbutrin <18 years: not recommended; ≥18 years: initially 100 mg bid for at least 3 days; may increase to 375 or 400 mg/day after several weeks; then after at least 3 more days, 450 mg in 4 divided doses; max 450 mg/day, 150 mg/single dose

Tab: 75, 100 mg

Wellbutrin SR <18 years: not recommended; ≥18 years: initially 150 mg in AM for at least 3 days; increase to 150 mg bid if well tolerated; usual dose 300 mg/day; max 400 mg/day

Tab: 100, 150 mg sust-rel

Wellbutrin XL <18 years: not recommended; ≥18 years: initially 150 mg in AM for at least 3 days; increase to 150 mg bid if well tolerated; usual dose 300 mg/day; max 450 mg/day

Tab: 150, 300 mg sust-rel

#### MONOAMINE OXIDASE INHIBITORS (MAOIs)

Comment: Many drug and food interactions with this class of drugs; use cautiously. Should be reserved for refractory depression that has not responded to other classes of antidepressants. Concomitant use of MAOIs and SSRIs is an absolute contraindication. See mfr pkg insert for drug and food interactions.

isocarboxazid (C)(G) <16 years: not recommended; ≥16 years: initially 10 mg bid; increase by 10 mg every 2-4 days up to 40 mg/day; may increase by 20 mg/week to max 60 mg/day divided bid-qid</p>

Marplan Tab: 10 mg

Phenelzine (C)(G) <16 years: not recommended; ≥16 years: initially 15 mg tid; max 90 mg/day</p>

Nardil Tab: 15 mg

> selegiline (C) initially 10 mg tid; max 60 mg/day

Emsam Transdermal patch: 6 mg/24 h, 9 mg/24 h, 12 mg/24 h

Comment: With the Emsam transdermal patch 6 mg/24 h dose, the dietary restrictions commonly required when using non-selective MAOIs are not necessary.

tranylcypromine (C) initially 10 mg tid; may increase in 10 mg/day every 1-3 weeks; max 60 mg/day

Parnate Tab: 10 mg

#### **TETRACYCLICS**

- maprotiline (B)(G) <18 years: not recommended; ≥18 years: initially 75 mg/day for 2 weeks then change gradually as needed in 25 mg increments; max 225 mg/day Ludiomil Tab: 25, 50, 75 mg
  </p>
- mirtazapine (C) <12 years: not recommended; ≥12 years: initially 15 mg q HS; increase at intervals of 1-2 weeks; usual range 15-45 mg/day; max 45 mg/day Remeron Tab: 15\*, 30\*, 45\*mg</p>

Remeron SolTab *ODT*: 15, 30, 45 mg (orange) (phenylalanine)

chlordiazepoxide/amitriptyline (C)(IV)

**Limbitrol** <12 years: not recommended; ≥12 years: 3-4 tabs in divided doses *Tab: chlor* 5 mg/*amit* 12.5 mg

Limbitrol DS <18 years: not recommended; ≥18 years: 3-4 tabs in divided doses; max 6 tabs/day

Tab: chlor 10 mg/amit 25 mg

trazodone (C)(G) <18 years: not recommended; ≥18 years: initially 150 mg/day
 in divided doses with food; increase by 50 mg/day q 3-4 days; max 400 mg/day in
 divided doses or 50-400 mg at HS
</p>

#### ATYPICAL ANTIPSYCHOTICS

Abilify Tab: 2, 5, 10, 15, 20, 30 mg

Abilify Discmelt Tab: 15 mg orally disintegrating (vanilla) (phenylalanine)
Abilify Discmelt Tab: 15 mg orally disintegrating (vanilla) (phenylalanine)
Abilify Maintena Vial: 300, 400 mg ext-rel pwdr for IM injection after reconstitution; 300, 400 mg single-dose prefilled dual-chamber syringes w. supplies
Comment: Abilify is indicated for acute and maintenance treatment of manic or mixed episodes in bipolar I disorder, as monotherapy or as an adjunct to lithium or valproate, as adjunct to antidepressants for major depressive disorder (MDD), and for irritability associated with autistic disorder.

brexpiprazole (C) <12 years: not recommended; ≥12 years: initially 0.5 or 1 mg once daily; titrate weekly up to target 2 mg/day; max 3 mg/day; Moderate-severe hepatic impairment, renal impairment, or ESRD: max 2 mg/day</p>

Rexulti Tab: 0.25, 0.5, 1, 2, 3, 4 mg



### **DERMATITIS: ATOPIC (ECZEMA)**

Oral Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

#### SECOND GENERATION ANTIHISTAMINES

**Comment:** Second generation antihistamines are sedating, but much less so than the first generation antihistamines. All antihistamines are excreted into breast milk.

▶ cetirizine (C)(OTC)(G) <6 years: not recommended; ≥6-<65 years: initially 5-10 mg once daily; ≥65 years: 5 mg once daily</p>

Children's Zyrtec Chewable Chew tab: 5, 10 mg (grape)

Children's Zyrtec Allergy Syrup Syr: 1 mg/ml (4 oz) (grape, bubble gum)

(sugar-free, dye-free)

Zvrtec Tab: 10 mg

Zyrtec Hives Relief Tab: 10 mg

Zyrtec Liquid Gels Liq gel: 10 mg

► desloratadine (C)

Clarinex <6 years: not recommended; ≥6 years: 1/2-1 tab once daily

Tab: 5 mg

Clarinex RediTabs <6 years: not recommended; 6-12 years: 2.5 mg once daily; ≥12 years: 5 mg once daily

*ODT*: 2.5, 5 mg (tutti-frutti) (phenylalanine)

Clarinex Syrup <6 months: not recommended; 6-11 months: 1 mg (2 ml) once daily; 1-5 years: 1.25 mg (2.5 ml) once daily; 6-11 years: 2.5 mg (5 ml) once aily;  $\geq$ 12 years: 5 mg (10 ml) once daily

*Tab*: 0.5 mg per ml (4 oz) (tutti-frutti) (phenylalanine)

Desloratadine ODT

fexofenadine (C)(OTC)(G) 6 months-2 years: 15 mg bid; CrCl ≤90 mL/min: 15 mg once daily; 2-11 years: 30 mg bid; CrCl ≤90 mL/min: 30 mg once daily ≥12 years and older: ≥12 years: 60 mg once daily-bid or 180 mg once daily; CrCl <90 mL/min: 60 mg once daily Allegra Tab: 30, 60, 180 mg film-coat
</p>

Allegra Allergy *Tab*: 60, 180 mg film-coat Allegra ODT *ODT*: 30 mg (phenylalanine)

Allegra Oral Suspension Oral susp: 30 mg/5 ml (6 mg/ml) (4 oz)

▶ loratadine (C)(OTC)(G) <2 years: not recommended; 2-5 years: 5 mg once daily; ≥6 years: 5 mg bid or 10 mg once daily; Hepatic or Renal Insufficiency: (see mfr pkg insert)

Children's Claritin Chewables Chew tab: 5 mg (grape) (phenylalanine)

Children's Claritin Syrup 1 mg/ml (4 oz) (fruit) (sugar-free, alcohol-free, dye-free; sodium 6 mg/5 ml)

Claritin Tab: 10 mg

Claritin Hives Relief Tab: 10 mg

Claritin Liqui-Gels Lig gel: 10 mg

Claritin RediTabs 12 Hours *ODT*: 5 mg (mint)

Claritin RediTabs 24 Hours ODT: 10 mg (mint)

▶ levocetirizine (B)(OTC) administer dose in the PM; Seasonal Allergic Rhinitis:
<2 years: not recommended; may start at ≥2 years; Chronic Idiopathic Urticaria (CIU), Perennial Allergic Rhinitis: <6 months: not recommended; may start at ≥6 months; Dosing by Age: 6 months-5 years: max 1.25 mg once daily; 6-11 years: max 2.5 mg once daily; ≥12 years: 2.5-5 mg once daily; Renal Dysfunction <12 years: contraindicated; Renal Dysfunction ≥12 years: CrCl 50-80 ml/min: 2.5 mg once daily; CrCl 30-50 mL/min: 2.5 mg every other day; CrCl: 10-30 mL/min: 2.5 mg twice weekly (every 3-4 days); CrCl <10 mL/min, ESRD or hemodialysis: contraindicated:</p>

Children's Xyzal Allergy 24HR Oral Soln: 0.5 mg/ml (150 ml)

Xyzal Allergy 24HR Tab: 5\*mg

#### FIRST GENERATION ANTIHISTAMINES

hydroxyzine (C)(G) <6 years: 50 mg/day divided qid prn; ≥6 years: 50-100 mg/day divided qid prn; max 600 mg/day; 25 mg tid prn; max 600 mg/day</p>

AtaraxR Tab: 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)

VistarilR Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

#### TOPICAL STEROIDS

(For other topical steroids, see **Topical Corticosteroids** page 494)

Comment: Topical steroids should be applied sparingly and for the shortest time necessary. Do not use in the diaper area. Do not use an occlusive dressing. Systemic absorption of topical corticosteroids can induce reversible hypothalamic-pituitary-adrenal (HPA) axis suppression with the potential for clinical glucocorticoid insufficiency.

desonide 0.05% topical gel (C) <3 months: not recommended; ≥3 months: apply sparingly bid-tid; max 4 weeks
</p>

Desonate Gel: 0.05% (60 gm) (89% purified water; fragrance-free, surfactant-free, alcohol-free)

#### PHOSPHODIESTERASE 4 INHIBITOR

crisaborole 2% (C) <2 years: not recommended; ≥2 years: apply sparingly bid; max
 4 weeks
</p>

Eucrisa Oint: 2% (60 g)

#### INTERLEUKIN-4 RECEPTOR ALPHA ANTAGONIST

dupilumab <18 years: not recommended; ≥18 years: administer SC into the upper arm, abdomen, or thigh; rotate sites; initially 600 mg (2 x 300 mg injections at different sites) followed by 300 mg SC once every other week; may use with or without topical corticosteroids; may use with calcineurin inhibitors, but reserve only for problem areas (e.g., face, neck, intertriginous, and genital areas); avoid live vaccines.</p>

Dupixent *Prefill syr*: 300 mg/2 ml (2/pck without needle) (preservative-free) Comment: *dupilumab* is a human monoclonal IgG4 antibody that inhibits interleukin-4 (IL-4) and interleukin-13 (IL-13) signaling by specifically binding to the IL4Rα subunit shared by the IL-4 and IL-13 receptor complexes, thereby inhibiting the release of pro-inflammatory cytokines, chemokines, and IgE. *dupilumab* is indicated for moderate-to-severe atopic dermatitis in patients who are not adequately controlled with topical prescription therapies <u>or</u> when they are not advisable.

#### MOISTURIZING AGENTS

Aquaphor Healing Ointment (OTC) Oint: 1.75, 3.5, 14 oz (alcohol)

Eucerin Daily Sun Defense (OTC) Lotn: 6 oz (fragrance-free)

Comment: Eucerin Daily Sun Defense is a moisturizer with SPF-15 sunscreen.

Eucerin Facial Lotion (OTC) Lotn: 4 oz

Eucerin Light Lotion (OTC) Lotn: 8 oz

Eucerin Lotion (OTC) Lotn: 8, 16 oz

Eucerin Original Creme (OTC) Crm: 2, 4, 16 oz (alcohol)

Eucerin Plus Creme (OTC) Crm: 4 oz

Eucerin Plus Lotion (OTC) Lotn: 6, 12 oz

Eucerin Protective Lotion (OTC) Lotn: 4 oz (alcohol)

Comment: Eucerin Protective Lotion is a moisturizer with SPF-25 sunscreen.

Lac-Hydrin Cream (OTC) Crm: 280, 385 g

Lac-Hydrin Lotion (OTC) Lotn: 25, 400 g

Lubriderm Dry Skin Scented (OTC) Lotn: 6, 10, 16, 32 oz

Lubriderm Dry Skin Unscented (OTC) Lotn: 3.3, 6, 10, 16 oz (fragrance-free)

Lubriderm Sensitive Skin Lotion (OTC) *Lotn:* 3.3, 6, 10, 16 oz (lanolin-free)

Lubriderm Dry Skin (OTC) Lotn (scented): 2.5, 6, 10, 16 oz;

Lotn (fragrance-free): 1, 2.5, 6, 10, 16 oz

Lubriderm Bath 1-2 capfuls in bath or rub onto wet skin as needed, then rinse
Oil: 8 oz

Moisturel apply as needed

Crm: 4, 16 oz; Lotn: 8, 12 oz; Clnsr: 8.75 oz

#### OATMEAL COLLOIDS

Aveeno (OTC) add to bath as needed

Regular: 1.5 oz (8/pck); Moisturizing: 0.75 oz (8/pck)

Aveeno Oil (OTC) add to bath as needed

Oil: 8 oz

Aveeno Moisturizing (OTC) apply as needed

Lotn: 2.5, 8, 12 oz; Crm: 4 oz

Aveeno Cleansing Bar (OTC) Bar: 3 oz

Aveeno Gentle Skin Cleanser (OTC) Liq clnsr: 6 oz

#### TOPICAL OIL

► fluocinolone acetamide 0.01% topical oil (C)

Derma-Smoothe/FS Topical Oil <6 years: not recommended; 6-12 years: apply sparingly bid for up to 4 weeks; >12 years: apply sparingly tid

Topical oil: 0.01% (4 oz) (peanut oil)

#### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain *Crm*: 0.075% (1, 2 oz)
Capsin (OTC) *Lotn*: 0.025, 0,075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz) Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

**Comment**: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

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Prudoxin Crm: 5% (45 gm)

**Zonalon** *Crm*: 5% (30, 45 gm)

pimecrolimus 1% cream (C) <2 years: not recommended; ≥2 years: apply to affected area bid; do not occlude</p>

Elidel Crm: 1% (30, 60, 100 gm)

**Comment:** *pimecrolimus* is indicated for short-term and intermittent long-term use. Discontinue use when resolution occurs. Contraindicated if the patient is immunosuppressed. Change to the 0.1% preparation <u>or</u> if secondary bacterial infection is present.

► tacrolimus (C) <2 years: not recommended; 2-15 years: use 0.03% strength; apply to affected area bid; continue for 1 week after clearing; >15 years: apply to affected area bid; do not occlude or apply to wet skin; continue for 1 week after clearing

Protopic Oint: 0.03, 0.1% (30, 60, 100 gm)

trolamine salicylate (NE) <2 years: not recommended; ≥2 years: apply tid-qid printo intact skin
</p>

Mobisyl Crm: 10%

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks.

#### TOPICAL ANESTHETIC

▶ lidocaine (B) reduce dosage commensurate with age, body weight, and physical condition (see pkg insert); apply to affected area bid-tid prn

Lidoderm Crm: 3% (85 gm)



### **DERMATITIS: CONTACT**

#### **PROPHYLAXIS**

bentoquatam (NE) <6 years: not recommended; ≥6 years: apply as a wet film to exposed skin at least 15 minutes prior to possible contact; reapply at least q 4 hours; remove with soap and water

IvyBlock (OTC) Soln: 120 ml

Comment: Provides protection against genus rhus (poison ivy, oak, and sumac).

#### **TREATMENT**

#### **Oatmeal Colloids**

Aveeno (OTC) add to bath as needed

Regular: 1.5 oz (8/pck); Moisturizing: 0.75 oz (8/pck)

Aveeno Oil (OTC) add to bath as needed

Oil: 8 oz

Aveeno Moisturizing (OTC) apply as needed

Lotn: 2.5, 8, 12 oz; Crm: 4 oz

Aveeno Cleansing Bar (OTC) Bar: 3 oz

Aveeno Gentle Skin Cleanser (OTC) Lia clnsr: 6 oz

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Topical Corticosteroids see page 494

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

#### SECOND GENERATION ANTIHISTAMINES

Comment: The following drugs are second generation antihistamines. As such they minimally sedating, much less so than the first generation antihistamines. All antihistamines are excreted into breast milk.

cetirizine (C)(OTC)(G) <6 years: not recommended; ≥6-<65 years: initially 5-10 mg once daily; ≥65 years: 5 mg once daily</p>

Children's Zyrtec Chewable Chew tab: 5, 10 mg (grape)

Children's Zyrtec Allergy Syrup Syr: 1 mg/ml (4 oz) (grape, bubble gum)

(sugar-free, dye-free)

Zvrtec Tab: 10 mg

Zyrtec Hives Relief Tab: 10 mg

Zyrtec Liquid Gels Liq gel: 10 mg

desloratadine (C)

Clarinex <6 years: not recommended; ≥6 years: 1/2-1 tab once daily

Tab: 5 mg

Clarinex RediTabs <6 years: not recommended; 6-12 years: 2.5 mg once daily; ≥12 years: 5 mg once daily

*ODT*: 2.5, 5 mg (tutti-frutti) (phenylalanine)

Clarinex Syrup <6 months: not recommended; 6-11 months: 1 mg (2 ml) once daily; 1-5 years: 1.25 mg (2.5 ml) once daily; 6-11 years: 2.5 mg (5 ml) once daily; ≥12 years: 5 mg (10 ml) once daily

*Tab*: 0.5 mg per ml (4 oz) (tutti-frutti) (phenylalanine)

Desloratadine ODT <6 years: not recommended; 6-11 years: ½ tab once daily; ≥12 years: 1 tab once daily

ODT: 5 mg

Allegra Allergy *Tab*: 60, 180 mg film-coat Allegra ODT *ODT*: 30 mg (phenylalanine)

Allegra Oral Suspension Oral susp: 30 mg/5 ml (6 mg/ml) (4 oz)

▶ loratadine (C)(OTC)(G) <2 years: not recommended; 2-5 years: 5 mg once daily; ≥6 years: 5 mg bid or 10 mg once daily; Hepatic or Renal Insufficiency: (see mfr pkg insert)</p>

Children's Claritin Chewables Chew tab: 5 mg (grape) (phenylalanine)

Children's Claritin Syrup 1 mg/ml (4 oz) (fruit) (sugar-free, alcohol-free, dye-free; sodium 6 mg/5 ml)

Claritin Tab: 10 mg

Claritin Hives Relief Tab: 10 mg

Claritin Liqui-Gels Lig gel: 10 mg

Claritin RediTabs 12 Hours ODT: 5 mg (mint)

Claritin RediTabs 24 Hours ODT: 10 mg (mint)

▶ levocetirizine (B)(OTC) administer dose in the PM; Seasonal Allergic Rhinitis:
<2 years: not recommended; may start at ≥2 years; Chronic Idiopathic Urticaria (CIU), Perennial Allergic Rhinitis: <6 months: not recommended; may start at ≥ 6 months; Dosing by Age: 6 months-5 years: max 1.25 mg once daily; 6-11 years: max 2.5 mg once daily; ≥12 years: 2.5-5 mg once daily; Renal Dysfunction <12 years: contraindicated; Renal Dysfunction ≥12 years: CrCl 50-80 ml/min: 2.5 mg once daily; CrCl 30-50 mL/min: 2.5 mg every other day; CrCl: 10-30 mL/min: 2.5 mg twice weekly (every 3-4 days); CrCl <10 mL/min, ESRD or hemodialysis: contraindicated;</p>

Children's Xyzal Allergy 24HR Oral Soln: 0.5 mg/ml (150 ml)

Xyzal Allergy 24HR Tab: 5\*mg

#### FIRST GENERATION ANTIHISTAMINES

*▶* diphenhydramine (B)(G)

Benadryl (OTC) <2 years: not recommended; 2-6 years: 6.25 mg q 4-6 hours; max 37.5 mg/day; >6-12 years: 12.5-25 mg q 4-6 hours; max 150 mg/day; >12 years: 25-50 mg q 6-8 hours; max 100 mg/day

Chew tab: 12.5 mg (grape) (phenylalanine); Liq: 12.5 mg/5 ml (4, 8 oz); Cap: 25 mg; Tab: 25 mg; Dye-free soft gel: 25 mg;

Dye-free liq: 12.5 mg/5 ml (4, 8 oz)

diphenhydramine injectable (B)(G)

**Benadryl Injectable** <12 years: See mfr pkg insert: 1.25 mg/kg up to 25 mg IM x 1 dose; then q 6 hours prn;  $\geq$ 12 years: 25-50 mg IM immediately; then q 6 hours prn

Vial: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multi-dose); Amp: 10 mg/ml (1 ml); Prefilled syringe: 50 mg/ml (1 ml)

hydroxyzine (C)(G) <6 years: 50 mg/day divided qid prn; ≥6 years: 50-100 mg/day divided qid prn</p>

**Atarax** *Tab*: 10, 25, 50, 100 mg; *Syr*: 10 mg/5 ml (alcohol 0.5%)

Vistaril Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

Comment: *hydroxyzine* is contraindicated in early pregnancy and in patients with a prolonged QT interval. It is not known whether this drug is excreted in human milk; therefore, *hydroxyzine* should not be given to nursing mothers.



# DERMATITIS: GENUS RHUS (POISON OAK, POISON IVY, POISON SUMAC)

#### **PROPHYLAXIS**

bentoquatam (NE) <6 years: not recommended; ≥6 years: apply as a wet film to exposed skin at least 15 minutes prior to possible contact; reapply at least q 4 hours; remove with soap and water

IvyBlock (OTC) Soln: 120 ml

Comment: Provides protection against genus rhus (poison oak, poison ivy, and poison sumac).

#### **TREATMENT**

#### Oatmeal Colloids

Aveeno (OTC) add to bath as needed

Regular: 1.5 oz (8/pck); Moisturizing: 0.75 oz (8/pck)

Aveeno Oil (OTC) add to bath as needed

Oil: 8 oz

Aveeno Moisturizing (OTC) apply as needed

Lotn: 2.5, 8, 12 oz; Crm: 4 oz

Aveeno Cleansing Bar (OTC) Bar: 3 oz

Aveeno Gentle Skin Cleanser (OTC) Liq clnsr: 6 oz

Oral Drugs for Allergy, Cough, and Cold see page 523

Topical Corticosteroids see page 494

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

#### SECOND GENERATION ANTIHISTAMINES

**Comment**: The following drugs are second generation antihistamines. As such they minimally sedating, much less so than the first generation antihistamines. All antihistamines are excreted into breast milk.

cetirizine (C)(OTC)(G) <6 years: not recommended; ≥6-<65 years: initially 5-10 mg once daily; ≥65 years: 5 mg once daily</p>

Children's Zyrtec Chewable Chew tab: 5, 10 mg (grape)

Children's Zyrtec Allergy Syrup Syr: 1 mg/ml (4 oz) (grape, bubble gum)

(sugar-free, dye-free) **Zyrtec** *Tab*: 10 mg

Zyrtec Hives Relief Tab: 10 mg

Zyrtec Liquid Gels Liq gel: 10 mg

desloratadine (C)

Clarinex <6 years: not recommended; ≥6 years: 1/2-1 tab once daily

Tab: 5 mg Clarinex RediTabs <6 years: not recommended; 6-12 years: 2.5 mg once daily;

Clarinex RediTabs <6 years: not recommended; 6-12 years: 2.5 mg once daily; ≥12 years: 5 mg once daily

ODT: 2.5, 5 mg (tutti-frutti) (phenylalanine)

Clarinex Syrup <6 months: not recommended; 6-11 months: 1 mg (2 ml) once daily; 1-5 years: 1.25 mg (2.5 ml) once daily; 6-11 years: 2.5 mg (5 ml) once daily; ≥12 years: 5 mg (10 ml) once daily

*Tab*: 0.5 mg per ml (4 oz) (tutti-frutti) (phenylalanine)

Desloratadine ODT <6 years: not recommended; 6-11 years: ½ tab once daily; ≥12 years: 1 tab once daily

ODT: 5 mg

Allegra Allergy *Tab*: 60, 180 mg film-coat Allegra ODT *ODT*: 30 mg (phenylalanine)

Allegra Oral Suspension Oral susp: 30 mg/5 ml (6 mg/ml) (4 oz)

▶ loratadine (C)(OTC)(G) <2 years: not recommended; 2-5 years: 5 mg once daily; ≥6 years: 5 mg bid or 10 mg once daily; Hepatic or Renal Insufficiency: (see mfr pkg insert)

Children's Claritin Chewables Chew tab: 5 mg (grape) (phenylalanine)

Children's Claritin Syrup 1 mg/ml (4 oz) (fruit) (sugar-free, alcohol-free, dye-free; sodium 6 mg/5 ml)

Claritin Tab: 10 mg

Claritin Hives Relief Tab: 10 mg

Claritin Liqui-Gels Lig gel: 10 mg

Claritin RediTabs 12 Hours ODT: 5 mg (mint)

Claritin RediTabs 24 Hours ODT: 10 mg (mint)

▶ levocetirizine (B)(OTC) administer dose in the PM; Seasonal Allergic Rhinitis:
<2 years: not recommended; may start at ≥2 years; Chronic Idiopathic Urticaria (CIU), Perennial Allergic Rhinitis: <6 months: not recommended; may start at ≥ 6 months; Dosing by Age: 6 months-5 years: max 1.25 mg once daily; 6-11 years: max 2.5 mg once daily; ≥12 years: 2.5-5 mg once daily; Renal Dysfunction <12 years: contraindicated; Renal Dysfunction ≥12 years: CrCl 50-80 ml/min: 2.5 mg once daily; CrCl 30-50 mL/min: 2.5 mg every other day; CrCl: 10-30 mL/min: 2.5 mg twice weekly (every 3-4 days); CrCl <10 mL/min, ESRD or hemodialysis: contraindicated;</p>

Children's Xyzal Allergy 24HR Oral Soln: 0.5 mg/ml (150 ml)

Xyzal Allergy 24HR Tab: 5\*mg

#### FIRST GENERATION ANTIHISTAMINES

*▶* diphenhydramine (B)(G)

Benadryl (OTC) <2 years: not recommended; 2-6 years: 6.25 mg q 4-6 hours; max 37.5 mg/day; >6-12 years: 12.5-25 mg q 4-6 hours; max 150 mg/day; >12 years: 25-50 mg q 6-8 hours; max 100 mg/day

Chew tab: 12.5 mg (grape) (phenylalanine);  $\dot{L}iq$ : 12.5 mg/5 ml (4, 8 oz); Cap: 25 mg; Tab: 25 mg; Dye-free soft gel: 25 mg;

Dye-free liq: 12.5 mg/5 ml (4, 8 oz)

*▶ diphenhydramine* injectable (B)(G)

**Benadryl Injectable** <12 years: See mfr pkg insert: 1.25 mg/kg up to 25 mg IM x 1 dose; then q 6 hours prn;  $\geq$ 12 years: 25-50 mg IM immediately; then q 6 hours prn

Vial: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multi-dose); Amp: 10 mg/ml (1 ml): Prefilled syringe: 50 mg/ml (1 ml)

hydroxyzine (C)(G) <6 years: 50 mg/day divided qid prn; ≥6 years: 50-100 mg/day divided qid prn</p>

Atarax Tab: 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)

Vistaril Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

Comment: *hydroxyzine* is contraindicated in early pregnancy and in patients with a prolonged QT interval. It is not known whether this drug is excreted in human milk; therefore, *hydroxyzine* should not be given to nursing mothers.

# **DERMATITIS: SEBORRHEIC**

## ANTIFUNGAL SHAMPOOS AND TOPICAL AGENTS

- chloroxine shampoo (C) <12 years: not recommended; ≥12 years: massage onto wet scalp; wait 3 minutes, rinse, repeat, and rinse thoroughly; use twice weekly Capitrol Shampoo Shampoo: 2% (4 oz)</p>
- ciclopirox (B) apply gel once daily or apply cream or lotion twice daily, x 4 weeks or shampoo twice weekly; massage shampoo onto wet scalp; wait 3 minutes, rinse, repeat, and rinse thoroughly; shampoo twice weekly

Loprox Cream <10 years: not recommended

Crm: 0.77% (15, 30, 90 gm)

Loprox Gel <16 years: not recommended

Gel: 0.77% (30, 45 gm)

Loprox Lotion <10 years: not recommended

Lotn: 0.77% (30, 60 ml)

Loprox Shampoo Shampoo: 1% (120 ml)

coal tar (C)(G)

Scytera (OTC) apply once daily-qid; use lowest effective dose Foam: 2%

T/Gel Shampoo Extra Strength (OTC) use every other day; max 4 x/week; massage into wet scalp for 5 minutes; rinse; repeat

Shampoo: 1%

T/Gel Shampoo Original Formula (OTC) use every other day; max 7 x/week; massage into wet scalp for 5 minutes; rinse; repeat

Shampoo: 0.5%

T/Gel Shampoo Stubborn Itch Control (OTC) use every other day; max 7 x/ week; massage into wet scalp for 5 minutes; rinse; repeat Shampoo: 0.5%

► fluocinolone acetamide (C)

Derma-Smoothe/FS Shampoo <12 years: not recommended; ≥12 years: apply up to 1 oz to scalp daily, lather, and leave on x 5 minutes, then rinse twice *Shampoo*: 0.01% (4 oz)

Derma-Smoothe/FS Topical Oil *fluocinolone acetamide* 0.01% topical oil (C) <6 years: not recommended; ≥6-12 years: apply sparingly bid for up to 4 weeks; >12 years: apply sparingly tid; for scalp psoriasis wet <u>or</u> dampen hair <u>or</u> scalp, then apply a thin film, massage well, cover with a shower cap and leave on for at least 4 hours <u>or</u> overnight, then wash hair with regular shampoo and rinse

Topical oil: 0.01% (4 oz) (peanut oil)

ketoconazole (C) <12 years: not recommended; ≥12 years: apply cream or gel once daily x 4 week or apply up to 1 oz shampoo to scalp daily, lather, leave on x 5 minutes, then rinse twice

Nizoral Cream Crm: 2% (15, 30, 60 gm) Nizoral Shampoo Shampoo: 2% (4 oz)

Xolegel Gel: 2% (45 gm)

Xolegel Duo Kit: Xolegel Gel: 2% (45 gm) + Xolex Shampoo: 2% (4 oz)

Selenium sulfide (C) <12 years: not recommended; ≥12 years: massage cream into scalp twice weekly x 2 weeks or massage into wet scalp, wait 2-3 minutes, rinse; repeat twice weekly x 2 weeks; may continue treatment with lotion of shampoo 1-2 x weekly as needed</p>

Exsel Shampoo Shampoo: 2.5% (4 oz)

Selsun Rx Lotn: 2.5% (4 oz)

**Selsun Shampoo** *Shampoo*: 1% (120, 210, 240, 330 ml); 2.5% (120 ml)

**▶** sodium sulfacetamide/sulfur (C)

Clenia Emollient Cream apply daily tid

*Emol crm: sod sulfa 10%/sulfur 5% (10 oz) (alcohol-free)* 

Clenia Foaming Wash wash 1-2 x/daily

Wash: sod sulfa 10%/sulfur 5% (6, 12 oz) (alcohol-free)

Rosula Gel apply daily tid

Gel: sod sulfa 10%/sulfur 4.5% (45 ml)

Rosula Lotion apply daily tid

Lotn: sod sulfa 10%/sulfur 4.5% (45 ml) (alcohol-free)

Rosula Wash wash bid

Clnsr: sod sulfa 10%/sulfur 4.5% (12 oz) (alcohol-free)

#### TOPICAL STEROID

betamethasone valerate 0.12% foam (C)(G) <12 years: not recommended; ≥12 years: apply twice daily in AM and PM; invert can and dispense a small amount of foam onto a clean saucer or another cool surface (do not apply directly to hand) and massage a small amount into affected area until foam disappears</p>

Luxiq Foam: 100 g

Other Topical Corticosteroids see page 494



# DIABETIC PERIPHERAL NEUROPATHY

#### NUTRITIONAL SUPPLEMENT

► L-methylfolate calcium(as metafolin)/pyridoxal 5-phosphate/methyl-cobalamin
(NE) <12 years: not recommended; ≥12 years: 1 cap twice daily or 2 caps once daily

Metany Capy meta 2 mg(ayr 25 mg/methyl 2 mg

Metanx Cap: meta 3 mg/pyr 35 mg/methyl 2 mg

**Comment:** Metanx is indicated as adjunct treatment for patients with endothelial cell dysfunction, who have loss of protective sensation and neuropathic pain associated with diabetic peripheral neuropathy.

Acetaminophen for IV Infusion see Pain page 296

#### ORAL ANALGESICS

- acetaminophen (B)(G) see Fever page 137
- aspirin (D)(G) see Fever page 137

Comment: *aspirin*-containing medications are contraindicated with history of allergic-type reaction to *aspirin*, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

Comment: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Rybix ODT <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoid-ectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day;  $CrCl < 30 \ mL/min \ or severe hepatic impairment$ : not recommended; Cirrhosis: max 50 mg q 12 hours

ODT: 50 mg (mint) (phenylalanine)

Ryzolt <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; *CrCl* <30 mL/min or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

Ultram <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 50-100 mg q 4-6 hours prn; max 400 mg/day; CrCl <30 mL/min: max 100 mg q 12 hours; Cirrhosis: max 50 mg q 12 hours

*Tab*: 50\*mg

Ultram ER <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain;  $\geq$ 18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl < 30 mL/min: or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

tramadol/acetaminophen (Č)(IV)(G) < 12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 2 tabs q 4-6 hours; max 8 tabs/day; 5 days; CrCl < 30 mL/min: max 2 tabs q 12 hours; max 4 tabs/day x 5 days
</p>

Ultracet *Tab: tram 37.5/acet 325* mg Other Oral Analgesics see *Pain page 298* 

Comment: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

#### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0,075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) *Emol crm*: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

capsaicin 8% patch (B) <18 years: not recommended; ≥18 years: apply up to 4 patches for one 60-minute application to clean dry skin; may prep area with topical anesthetic; wear non-latex gloves; patches may be cut to size/shape; treatment may be repeated every 3 months</p>

Qutenza Patch: 8% 1640 mcg/cm (179 mg) (1 or 2 patches w. 1-50 gm tube cleansing gel/carton)

bidocaine 5% patch (B)(G) <12 years: not recommended; ≥12 years: apply up to 3 patches at one time for up to 12 hours/24-hour period (12 hours on/12 hours off); patches may be cut into smaller sizes before removal of the release liner; do not reuse</p>

Lidoderm Patch: 5% 10 x 14 cm (30 patches/carton)

#### ANTICONVULSANTS

#### Gamma Aminobutyric Acid Analog

**Description** Problem 
Gralise (C) Tab: 300, 600 mg

Neurontin (G) *Tab*: 600\*, 800\* mg; *Cap*: 100, 300, 400 mg; *Oral soln*: 250 mg/5 ml (480 ml) (strawberry-anise)

gabapentin enacarbil (C) <18 years: not recommended; ≥18 years: 600 mg once daily at about 5:00 PM; if dose not taken at recommended time, next dose should be taken the following day; swallow whole; take with food; CrCl 30-59 mL/min: 600 mg on Day 1, Day 3, and every day thereafter; CrCl <30 mL/min: or hemodialysis: not recommended
</p>

Horizant Tab: 300, 600 mg ext-rel

Comment: Avoid abrupt cessation of *gabapentin enacarbil*. To discontinue, withdraw gradually over 1 week or longer.

pregabalin (GABA analog) (C)(V) <18 years: not recommended; ≥18 years: initially 50 mg tid; may titrate to 100 mg tid within one week; max 600 mg divided tid; discontinue over 1 week</p>

Lyrica Cap: 25, 50, 75, 100, 150, 200, 225, 300 mg; Oral soln: 20 mg/ml

## TRICYCLIC ANTIDEPRESSANTS (TCAs)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab:
   10, 25, 50, 75, 100, 150 mg
  </p>
- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)
  </p>

   Tab: 25, 50, 100, 150 mg
- clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS
   Anafranil Cap: 25, 50, 75 mg
- desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day
</p>

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

imipramine (C)(G) <12 years: not recommended; ≥12 years: Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to

Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg *Cap*: 75, 100, 125, 150 mg

nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid-qid; max 150 mg/day</p>

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
</p>

Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg

# DIABETIC RETINOPATHY

Comment: Diabetic retinopathy is the leading cause of blindness among working-age adults in the US.

ightharpoonup ranibizumab (D) <18 years: not established; ≥18 years:

Neovascular (wet) Age-related Macular Degeneration (AMD): Intravitreal: 0.5 mg once a month (approximately every 28 days). Frequency may be reduced (e.g., 4 to 5 injections over 9 months) after the first 3 injections or may be reduced after the first 4 injections to once every 3 months if monthly injections are not feasible. Note: A regimen averaging 4 to 5 doses over 9 months is expected to maintain visual acuity and an every 3-month dosing regimen has reportedly resulted in a ~5 letter (1 line) loss of visual acuity over 9 months, as compared to monthly dosing which may result in an additional ~1 to 2 letter gain

*Diabetic macular edema (DME):* Intravitreal: 0.3 mg once a month (approximately every 28 days); in clinical trials, monthly doses of 0.5 mg were also studied

Diabetic retinopathy (DR): Intravitreal: 0.3 mg once a month (approximately every 28 days)

Macular edema following retinal vein occlusion (RVO): Intravitreal: 0.5 mg once a month (approximately every 28 days)

*Myopic choroidal neovascularization (mCNV):* Intravitreal: 0.5 mg once a month (approximately every 28 days) for up to 3 months; may re-treat if necessary

Lucentis Prefilled Syringe: 0.3 mg/0.05 mL (0.05 ml); 0.5 mg/0.05 ml (0.05 ml); for intravitreal injection (preservative free);

*Vial:* 10 mg/ml (Lucentis 0.5 mg); 6 mg/ml solution (Lucentis 0.3 mg); single use; a 5-micron sterile filter needle (19 gauge x 1-1/2 inch) is required for preparation, but not included; Keep refrigerated. Do not freeze. Protect vial from light; see mfr pkg insert.

Comment: Lucentis is a recombinant humanized monoclonal antibody fragment which binds to and inhibits human vascular endothelial growth factor A (VEGF-A). Lucentis inhibits VEGF from binding to its receptors and thereby suppressing neovascularization and slowing vision loss. Contraindications include ocular or periocular infection, and active intraocular inflammation. For ophthalmic intravitreal injection only. Each vial or prefilled syringe should only be used for the treatment of a single eye. If the contralateral eye requires treatment, a new vial or prefilled syringe should be used and the sterile field, syringe, gloves, drapes, eyelid speculum, filter, and injection needles should be changed before Lucentis is administered to the other eye. Adequate anesthesia and a topical broad-spectrum antimicrobial agent should be administered prior to the procedure. Refer to manufacturer labeling for additional detailed information. Based on its mechanism of action, adverse effects on pregnancy would be expected. Information related to use in pregnancy is limited. The intravitreal injection procedure should be carried out under controlled aseptic conditions, which include the use of sterile gloves, a sterile drape, and a sterile eyelid speculum (or equivalent). Adequate anesthesia

and a broad-spectrum microbicide should be given prior to the injection. Prior to and 30 minutes following the intravitreal injection, patients should be monitored for elevation in intraocular pressure using tonometry. Each prefilled syringe or vial should only be used for the treatment of a single eye. If the contralateral eye requires treatment, a new prefilled syringe or vial should be used and the sterile field, syringe, gloves, drapes, eyelid speculum, filter needle (vial only), and injection needles should be changed. Solomon, SD, Chew, E, Duh, EJ, et al. Diabetic retinopathy: A position statement by the American Diabetes Association [published online February 21, 2017]. ADA.

# **DIAPER RASH**

Topical Corticosteroids see page 494

**Comment:** Low to intermediate potency topical corticosteroids are indicated if inflammation is present.

#### PROTECTIVE BARRIERS

aloe/vitamin E/zinc oxide (NE) ointment apply at each diaper change after thoroughly cleansing skin

Balmex Oint: 2, 4 oz tube; 16 oz jar

vitamin A&D (NE) (G) ointment apply at each diaper change after thoroughly cleansing skin

A&D Ointment Oint: 1.5, 4 oz

zinc oxide (NE)(G) cream and ointment apply at each diaper change after thoroughly cleansing the skin

A&D Ointment with Zinc Oxide Oint: 10% (1.5, 4 oz)

Desitin Oint: 40% (1, 2, 4, 9 oz)

Desitin Cream Crm: 10% (2, 4 oz)

#### TOPICAL ANTIFUNGALS

Comment: Use if caused by Candida albicans.

butenafine (B)(G) <12 years: not recommended; ≥12 years: apply bid x 1 week or once daily x 4 weeks</p>

Lotrimin Ultra (C)(OTC) Crm: 1% (12, 24 gm)

Mentax Crm: 1% (15, 30 gm)

**Comment**: *butenafine* is a benzylamine, not an azole. Fungicidal activity continues for at least 5 weeks after last application.

clotrimazole (B) apply to affected area bid x 7 days

Lotrimin (OTC) Crm: 1% (15, 30, 45 gm)

**Lotrimin AF (OTC)** Crm: 1% (12 gm); Lotn: 1% (10 ml); Soln: 1% (10 ml)

econazole (C) apply bid x 7 days

Spectazole Crm: 1% (15, 30, 85 gm)

► *ketoconazole* (C) apply to affected area bid x 7 days

Nizoral Cream Crm: 2% (15, 30, 60 gm)

nystatin (C)(G) apply bid x 7 days

Mycostatin Crm: 100,000 U/g (15, 30 gm)

Diarrhea: Acute ● 117

#### COMBINATION AGENT

Colorimazole/betamethasone cream (C)(G) apply bid x 7 days
 Lotrisone Crm: 15, 45 g

# **DIARRHEA: ACUTE**

**▶** attapulgite (C)

Donnagel (OTC) <3 years: not recommended; 3-6 years: 7.5 ml; >6-12 years: 15 ml; >12 years: 30 ml after each loose stool; max 7 doses/day x 2 days

Liq: 600 mg/15 ml (120, 240 ml)

Donnagel Chewable Tab (OTC) <3 years: not recommended; 3-6 years: 1/2 tab after each loose stool; max 7 doses/day; >6-12 years: 1 tab after each loose stool; max tabs/day; >12 years: 2 tabs after each loose stool; max 14 tabs/day

Chew tab: 600 mg

**Kaopectate (OTC)** <3 years: not recommended; 3-6 years: 7.5 ml after each loose stool; >6-12 years: 15 ml after each loose stool; >12 years: 30 ml after each loose stool; max 7 doses/day x 2 days

Liq: 600 mg/15 ml (120, 240 ml)

bismuth subsalicylate (C; D in 3rd)(G)

**Pepto-Bismol (OTC)** <3 years (14-18 lb): 2.5 ml q 4 hours; max 6 doses/day; <3 years(18-28 lb): 5 ml q 4 hours; max 6 doses/day; 3-6 years: 1/3 tab or 5 ml q 30-60 minutes; max 8 doses/day; >6-9 years: 2/3 tab or 10 ml q 30-60 minutes; max 8 doses/day; >9-12 years: 1 tab or 15 ml q 30-60 minutes; max 8 doses/day; >12 years: 2 tabs or 30 ml q 30-60 minutes as needed; max 8 doses/day

Chew tab: 262 mg; Liq: 262 mg/15 ml (4, 8, 12, 16 oz)

Pepto-Bismol Maximum Strength (OTC) <3 years: not recommended; 3-6 years: 5 ml q 60 minutes; max 4 doses/day; >6-9 years: 10 ml q 60 minutes; max 4 doses/day; >9-12 years: 15 ml q 60 minutes; max 4 doses/day; >12 years: 30 ml q 60 minutes; max 4 doses/day

*Liq*: 525 mg/15 ml (4, 8, 12, 16 oz)

Comment: *aspirin*-containing medications are contraindicated with history of allergic type reaction to *aspirin*, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

calcium polycarbophil (C)

 $\label{eq:Fibercon} \begin{tabular}{l} Fibercon (OTC) < 6 \ years: not recommended; 6-12 \ years: 1 \ tab \ daily \ qid; > 12 \ years: 2 \ tabs \ daily \ qid \end{tabular}$ 

Cplt: 625 mg

Mytesi Tab: 125 mg del-rel

Comment: crofelemer is indicated for the symptomatic relief of non-infectious diarrhea in patients  $\ge$ 18 years with HIV/AIDS on antiretroviral therapy.

*▶* difenoxin/atropine (C)

**Motofen** <2 years: not recommended;  $\ge 2$  years: 2 tabs, then 1 tab after each loose stool or 1 tab q 3-4 hours as needed; max 8 tab/day x 2 days

Tab: dif 1 mg/atro 0.025 mg

diphenoxylate/atropine (C)(V)(G) <2 years: not recommended; 2-12 years: initially 0.3-0.4 mg/kg/day in 4 divided doses; >12 years: 2 tabs or 10 ml qid until diarrhea is controlled

Lomotil Tab: diphen 2.5 mg/atrop 0.025 mg; Liq: diphen 2.5 mg/atrop 0.025 mg per 5 ml (2 oz)

#### loperamide (B)(OTC)(G)

**Imodium** <5 years: not recommended;  $\geq$ 5 years: 4 mg initially, then 2 mg after each loose stool; max 16 mg/day x 2 days

Cap: 2 mg

Imodium A-D <2 years: not recommended; 2-5 years (24-47 lb): 1 mg up to tid x 2 days; 6-8 years (48-59 lb): 2 mg initially, then 1 mg after each loose stool; max 4 mg/day x 2 days; 9-11 years (60-95 lb): 2 mg initially, then 1 after each loose stool; max 6 mg/day x 2 days; >11 years: 4 mg initially, then 2 mg after each loose stool; usual max 8 mg/day x 2 days

*Cplt*: 2 mg; *Liq*: 1 mg/5 ml (2, 4 oz) (cherry-mint) (alcohol 0.5%)

#### ▶ loperamide/simethicone (B)(OTC)(G)

Imodium Advanced <6 years: not recommended; 6-8 years: chew 1 tab after loose stool, then chew 1/2 tab after next loose stool;  $\geq$ 8-11 years: chew 1 tab after loose stool, then chew 1/2 tab after next loose stool; max 3 tabs/day; >11 years: 2 tabs chewed after loose stool, then 1 after the next loose stool; max 4 tabs/day

Chew tab: loper 2 mg/simeth 125 mg (vanilla-mint)

#### ORAL REHYDRATION AND ELECTROLYTE REPLACEMENT THERAPY

## > oral electrolyte replacement (NE)(OTC)

CeraLyte 50 <4 years: not indicated; ≥4 years: dissolve in 8 oz water Pkt: sodium 50 mEq/potassium 20 mEq/chloride 40 mEq/citrate 30 mEq/rice syrup solids 40 gm/calories 190 per liter (mixed berry) (gluten-free)

CeraLyte 70 <4 years: not indicated; ≥4 years: dissolve in 8 oz water

\*Pkt: sodium 70 mEq/potassium 20 mEq/chloride 60 mEq/citrate 30 mEq/rice

\*syrup solids 40 gm/calories 165 per liter (natural or lemon) (gluten-free)

**KaoLectrolyte** <2 years: not indicated;  $\geq$ 2 years: 1 pkt dissolved in 8 oz water q 3-4 hours

Pkt: sod 12 mEq/pot 5 mEq/chlor 10 mEq/citrate 7 mEq/dextrose 5 gm/ calories 22 per 6.2 g

Pedialyte <2 years: as desired and as tolerated; ≥2 years: 1-2 L/day

Oral soln: dextrose 20 gm/fructose 5 gm/sodium 25 mEq/potassium 20 mEq/
chloride 35 mEq/citrate 30 mEq/calories 100 per liter (8 oz, 1 L)

Pedialyte Freezer Pops as desired and as tolerated

Pops: dextrose 1.6 gm/sodium 2.8 mEq/potassium 1.25 mEq/chloride 2.2 mEq/citrate 1.88 mEq/calories 6.25 per 6.25 ml pop (8 oz, 1 L)



# **DIARRHEA: CARCINOID SYNDROME**

#### TRIPTOPHAN HYDROXYLASE

telotristat <18 years: not established; ≥18 years: take with food; 250 mg tid
 Xermelo Tab: 250 mg (4 x 7 daily dose packs/carton
</p>

**Comment**: Take **Xermelo** in combination with somatostatin analog (SSA) therapy to treat patients inadequately controlled by SSA therapy. Breastfeeding females should monitor the infant for constipation.

Diarrhea: Chronic • 119

# **DIARRHEA: CHRONIC**

### **▶** cholestyramine (C)

Questran Powder for Oral Suspension initially 1 pkt or scoop daily; usual maintenance 2-4 pkts or scoops daily in 2 doses; max 6 pkts or scoops daily Oral pwdr: 9 gm pkts; 9 gm equals 4 gm anhydrous cholestyramine resin (60/pck); Bulk can: 378 gm w. scoop

Questran Light initially 1 pkt or scoop daily; usual maintenance 2-4 pkts or scoops daily in 2 doses

Light: 5 gm pkts; 5 gm equals 4 gm anhydrous cholestyramine resin (60/pck); Bulk can: 210 gm w. scoop

**Comment**: Use *cholestyramine* only if diarrhea is due to bile salt malabsorption.

crofelemer (C) not established; <12 years: not recommended; ≥12 years: 2 tabs daily; swallow whole with or without food; do not crush or chew
 Mytesi Tab: 125 mg del-rel
</p>

Comment: *crofelemer* is indicated for the symptomatic relief of non-infectious diarrhea in patients ≥18 years with HIV/AIDS on antiretroviral therapy.

#### ⇒ difenoxin/atropine (C)

**Motofen** <2 years: not recommended; ≥2 years: 2 tabs, then 1 tab after each loose stool or 1 tab q 3-4 hours prn; max 8 tab/day x 2 days

Tab: dif 1 mg/atrop 0.025 mg

## ► diphenoxylate/atropine (B)(V)(G)

Lomotil <2 years: not recommended; 2-12 years: initially 0.3-0.4 mg/kg/day in 4 divided doses; >12 years: 5-20 mg/day in divided doses

Tab: diphen 2.5 mg/atrop 0.025 mg; Liq: diphen 2.5 mg/atrop 0.025 mg per 5 ml (2 oz w. dropper)

#### **▶** attapulgite (C)(G)

Donnagel (OTC) <2 years: not recommended; 2-6 years: 7.5 ml after each loose stool; >6 years: 30 ml after each loose stool; max 7 doses/day

Liq: 600 mg/15 ml (120, 240 ml)

Donnagel Chewable Tab <3 years: not recommended; 3-6 years: 1/2 tab after each stool; max 7 doses/day; >6-12 years: 1 tab after each loose stool; max 7 tabs/day; >12 years: 2 tabs after each loose stool; max 14 tabs/day

#### ► loperamide (B)(OTC)(G)

**Imodium (OTC)** <5 years: not recommended; ≥5 years: 4-16 mg/day in divided doses

Cap: 2 mg

**Imodium A-D (OTC)** <2 years: not recommended; 2-5 years (24-47 lb): 1 mg up to tid x 2 days; >5-8 years (48-59 lb): 2 mg initially, then 1 mg after each loose stool; max 4 mg/day x 2 days; >8-11 years (60-95 lb): 2 mg initially, then 1 mg after each loose stool; max 6 mg/day x 2 days; >11 years: 4-16 mg/day in divided doses

Cplt: 2 mg; Liq: 1 mg/5 ml (2, 4 oz)

## loperamide/simethicone (B)(OTC)(G)

Imodium Advanced <6 years: not recommended; 6-8 years: chew 1 tab after loose stool, then chew 1/2 tab after next loose stool; 9-11 years: chew 1 tab after loose stool, then chew 1/2 tab after next loose stool; max 3 tabs/day; >11 years: 2 tabs chewed after loose stool, then 1 after the next loose stool; max 4 tabs/day Chew tab: loper 2 mg/simeth 125 mg

# **DIARRHEA: TRAVELERS**

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 3 days; max 1.5 gm/day

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml)

(strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel ProOuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy, and lactation. Risk of tendonitis or tendon rupture.

ightharpoonup rifaximin (C) <12 years: not recommended; ≥12 years: 200 mg tid x 3 days; discontinue if diarrhea worsens or persists more than 24 hours; not for use if diarrhea is accompanied by fever or blood in the stool or if causative organism other than *E. coli* is suspected.

Xifaxan Tab: 200 mg

trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)



# DIGITALIS TOXICITY

Comment: The digitalis therapeutic index is narrow, 0.8-1.2 ng/mL. Whether acute or chronic toxicity, the patient should be treated in the emergency department and/or admitted to in-patient service for continued monitoring and care. Signs and symptoms of digitalis toxicity include: loss of appetite, nausea, vomiting, abdominal pain, diarrhea, visual disturbances (diplopia, blurred, or yellow vision, yellow-green halos around lights and other visual images, spots, blind spots), decreased urine output, generalized edema, orthopnea, confusion, dilirium, decreased consciousness, potentially lethal cardiac arrhythmias (ranging from ventricular tachycardia (VT) and ventricular fibrillation (VF) to sino-atrial heart block AVB). Treatment measures include repeated doses of charcoal via NG tube administered after gastric lavage for acute ingestion (methods to induce vomiting are usually discouraged because vomiting can worsen bradyarrhythmias), digitalis binders. Monitoring includes: serial ECGs, serum digitalis level, chemistries, potassium (hyperkalemia), magnesium (hypomagnesemia), BUN and creatinine.

#### DIGOXIN BINDER

digoxin (immune fab [ovine])(B)contents of one vial of Digibind or Digifab neutralizes 0.5 mg digoxin; dose based on amount of digoxin or digitoxin to be neutralized; see mfr pkg insert

Digibind Vial: 38 mg

**Digifab** *Vial*: 40 mg for IV injection after reconstitution (preservative-free)



Prophylaxis see Childhood Immunizations page 473

#### POSTEXPOSURE PROPHYLAXIS FOR NON-IMMUNIZED PERSONS

erythromycin base (B)(G) 45 kg: 50 mg/kg/day in 4 divided doses x 14 days; ≥45 kg: 500 mg qid x 14 days

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

► erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 14 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

**►** *Immunization Series* 

see Childhood Immunizations page 473

#### POSTEXPOSURE PROPHYLAXIS FOR IMMUNIZED PERSONS

➤ *Diphtheria* immunization booster

# **DIVERTICULITIS**

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg(cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml(80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

≥ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended; ≥3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table; ≥40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms; ≥16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 7 days; max 1.5 gm/day

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml)

(strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy, and lactation. Risk of tendonitis <u>or</u> tendon rupture.

metronidazole (not for use in 1st; B in 2nd, 3rd)(G) 250-500 mg q 8 hours or 750 mg q 12 hours x 7 days

Flagyl Tab: 250\*, 500\*mg Flagyl 375 Cap: 375 mg

Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

# DIVERTICULOSIS

#### **BULK-PRODUCING AGENTS**

see Constipation page 87

# DRY EYE SYNDROME

### OPHTHALMIC IMMUNOMODULATOR/ANTI-INFLAMMATORY

> cyclosporine (C) <16 years: not recommended; ≥16 years: 1 drop q 12 hours Restasis Ophth emul: 0.05% (0.4 ml) (preservative-free)

Comment: Ophthalmic Immunomodulators are contraindicated with active ocular infection. Allow at least 15 minutes between doses of artificial tears. May reinsert contact lenses 15 minutes after treatment.

#### OCULAR LUBRICANTS

Comment: Remove contact lens prior to using an ocular lubricant.

*dextran 70/hypromellose* (NE) 1-2 drops prn

Bion Tears (OTC) Ophth soln: single-use containers (28/pck) (preservative-free)

hydroxypropyl cellulose (NE) apply 1/2 inch ribbon or 1 insert in each inferior culde-sac 1-2 times/day prn

Lacrisert Ophth inserts: 5 mg (60/pck) (preservative-free)

Hypotears Ophthalmic Ointment (OTC) Ophth oint: 1% (3.5 gm)

(preservative-free)

**Comment**: Place insert in the inferior cul-de-sac of the eye, beneath the base of the tarsus, not in opposition to the cornea nor beneath the eyelid at the level of the tarsal plate.

hydroxypropyl methylcellulose (NE) 1-2 drops prn

GenTeal Mild, GenTeal Moderate (OTC) Ophth soln: (15 ml) (perborate)

GenTeal Severe (OTC) Ophth soln: (15 ml) (carbopol 980, perborate)

petrolatum/mineral oil (NE)apply 1/2 inch ribbon prn

Hypotears Ophthalmic Ointment (OTC) Ophth oint: 1% (3.5 gm) (benzalkonium chloride, alcohol 1%)

Hypotears PF Ophthalmic Ointment (OTC) Ophth oint: 1% (3.5 gm) (preservative-free, alcohol 1%)

Lacri-Lube (OTC) Ophth oint: 1% (3.5, 7 gm)

Lacri-Lube NP (OTC) Ophth oint: 1% (0.7 g, 24/pck) (preservative-free)

petrolatum/lanolin/mineral oil (NE) apply 1/4 inch ribbon prn

Duratears Naturale (OTC) Ophth oint: 3.5 gm (preservative-free)

▶ polyethylene glycol/glycerin/hydroxypropyl methylcellulose (NE) 1-2 drops prn Visine Tears (OTC) Ophth soln: 1% (15, 30 ml)

▶ polyethylene glycol 400 0.4%/propylene glycol 0.3% (NE)1-2 drops prn

Systane (OTC) *Ophth soln*: (15, 30, 40 ml) (polyquaternium-1, zinc chloride); *Vial*: 0.01 oz (28) (preservative-free)

Systane Ultra (OTC) *Ophth soln*: (10, 20 ml) (aminomethylpropanol, polyquaternium-1, sorbitol (zinc chloride); *Vial*: 0.01 oz (24) (preservative-free)

**▶** *polyvinyl alcohol* (NE)1-2 drops prn

Hypotears (OTC) Ophth soln: 1% (15, 30 ml)

Hypotears PF (OTC) 1-2 drops q 3-4 hours prn

Ophth soln: 1% (0.02 oz single-use containers, 30/pck) (preservative-free)

▶ propylene glycol 0.6% (NE)1-2 drops prn

Systane Balance (OTC) Ophth soln: (10 ml) (polyquaternium-1)

# DUCHENNE MUSCULAR DYSTROPHY

Deflazacort (B) <5 years: not established; ≥ 5 years: 0.9 mg/kg/day administered once daily; take with or without food; may crush and mix with applesauce (then take immediately)
</p>

Emflaza Tab: 6, 18, 30, 36 mg; Oral susp: 22.75 mg/ml (13 ml)

Comment: Emflaza is the first FDA-approved HYPERLINK\t "corticosteroid indicated for this condition to decrease inflammation and reduce the activity of the immune system. The side effects caused by Emflaza are similar to those experienced with other corticosteroids. The most common side effects include facial puffiness

#### 124 • Duchenne Muscular Dystrophy

(Cushingoid appearance), weight gain, increased appetite, upper respiratory tract infection, cough, extraordinary daytime urinary frequency (pollakiuria), hirsutism, and central obesity. Other side effects that are less common include problems with endocrine function, increased susceptibility to infection, elevation in blood pressure, risk of gastrointestinal perforation, serious skin rashes, behavioral and mood changes, decrease in the density of the bones and vision problems such as cataracts. Patients receiving immunosuppressive doses of corticosteroids should not be given live or live attenuated vaccines (LAVs). Moderate or strong CYP3A4 inhibitors, give one third of the recommended dosage of Emflaza. Avoid use of moderate or strong CYP3A4 inducers with Emflaza, as they may reduce efficacy. Dosage must be decreased gradually if the drug has been administered for more than a few days. Use only the oral dispenser provided with the product. After withdrawing the appropriate dose into the oral dispenser, slowly add the oral suspension into 3 to 4 ounces of juice or milk and mix well. The dose should then be administered immediately. Do not administer with grapefruit. Discard any unused EMFLAZA Oral Suspension remaining after 1 month of first opening the bottle.



# **DYSHIDROSIS**

Topical Corticosteroids see page 494

Comment: Intermediate to high potency ophthalmic steroid treatment is indicated for dyshidrosis.



# DYSFUNCTIONAL UTERINE BLEEDING (DUB)

- **▶** medroxyprogesterone acetate (X) 10 mg daily x 10-13 days Provera *Tab*: 2.5, 5, 10 mg
- Oral contraceptives (X) with 35 mcg estrogen equivalent see Combined Oral Contraceptives page 476
   Oral Prescription NSAIDs see page 490
   Other Oral Analgesics see Pain page 298



# DYSLIPIDEMIA (HYPERCHOLESTEROLEMIA, HYPERLIPIDEMIA, MIXED DYSLIPIDEMIA)

#### OMEGA 3-ACID ETHYL ESTERS

omega 3-acid ethyl esters (C)(G) <18 years: not recommended; ≥18 years: 2 gm bid or 4 gm once daily

**Lovaza** *Soft gel cap:* 1 gm (α-tocopherol 4 mg/cap)

## MICROSOMAL TRIGLYCERIDE-TRANSFER PROTEIN (MTP) INHIBITOR

Iomitapide mesylate (X) <12 years: not recommended; ≥12 years: 10 mg daily Juxtapid Cap: 5, 10, 20 mg</p>

Comment: Juxtapid is an adjunct to low-fat diet and other lipid-lowering treatments, including LDL apheresis where available, to reduce LDL-C, total

cholesterol, apo-B, and non-HDL-C in patients with homozygous familial hypercholesterolemia (HoFH); not for patients with hypercholesterolemia who do not have HoFH

#### OLIGONUCLEOTIDE INHIBITOR OF APO B-100 SYNTHESIS

mipomersen (B) <12 years: not established; ≥12 years: administer 200 mg SC once weekly, on the same day, in the upper arm, abdomen, or thigh; administer 1st injection under appropriate professional supervision
</p>

**Kynamro** *Vial/Prefilled syringe:* 200 mg mg/ml soln for SC inj single-use vial (preservative-free)

**Comment:** Kynamro is an adjunct to low-fat diet and other lipid-lowering treatments, to reduce LDL-C, apo-B, total cholesterol (TC), non-HDL-C in patients with homozygous familial hypercholesterolemia (HoFH).

#### CHOLESTEROL ABSORPTION INHIBITOR

ezetimibe (C)(G) <10 years: not recommended; ≥10 years: 10 mg daily
 Zetia Tab: 10 mg
</p>

Comment: ezetimibe is contraindicated with concomitant statins in liver disease, persistent elevations in serum transaminase, pregnancy, and nursing mothers. Concomitant fibrates are not recommended. Potentiated by fenofibrate, gemfibrozil, and possibly cyclosporine. Separate dosing of bile acid sequestrants is required; take ezetimibe at least 2 hours before or 4 hours after.

# PROPROTEIN CONVERTASE SUBTILISIN KEXIN TYPE 9 (PCSK9) INHIBITOR

 ${\bf Comment: PCSK9 \ inhibitors \ are \ an \ adjunct \ to \ maximally \ tolerated \ statin \ therapy \ in persons \ who \ require \ additional \ lowering \ of \ LDL-C.}$ 

#### *▶* alirocumab (NE)

Praluent <12 years: not established; ≥12 years: administer SC in the upper outer arm, abdomen, or thigh; initially 75 mg SC once every 2 weeks; measure LDL 4-8 weeks after initiation or titration; if inadequate response, may increase to 150 mg SC every 2 weeks

Soln for SC inj: 75, 150 mg/ml single-use prefilled syringe (preservative-free) Comment: Although Praluent does not have an assigned pregnancy category, it is contraindicated in the 2nd and 3rd trimester of pregnancy.

#### ≥ evolocumab (NE)

Repatha <12 years: HeFH, primary hyperlipidemia: not established; HoFH: <13 years: not established; >13 years: administer SC in the upper outer arm, elbow, or thigh; measure LDL 4-8 weeks after initiation; *HeFH* or *primary hyperlipidemia*: 140 mg SC once every 2 weeks or 420 mg once monthly; *HoFH*: 420 mg once monthly

*Soln for SC inj:* single-use prefilled syringe; 140 mg/syringe; single-use prefilled SureClick Autoinjector (140 mg/syringe preservative-free)

**Comment**: To administer 420 mg of **Repatha**, administer 150 mg SC x 3 within 30 minutes. Although **Repatha** does not have an assigned pregnancy category, it is contraindicated in pregnancy.

## HMG-COA REDUCTASE INHIBITORS (STATINS)

Comment: The statins decrease total cholesterol, LDL-C, TG, and apo-B, and increase HDL-C. Before initiating and at 4-6 weeks, 3 months, and 6 months of therapy, check fasting lipid profile and LFTs. Side effects include myopathy and increased liver enzymes. Relative contraindications include concomitant use of cyclosporine, a macrolide antibiotic, various oral antifungal agents, and CYP-450 inhibitors. An absolute contraindication is active or chronic liver disease.

 atorvastatin (X)(G) <10 years: not recommended; ≥10 years (female post-menarche): initially 10 mg daily; usual range 10-80 mg/day

Lipitor Tab: 10, 20, 40, 80 mg

Fluvastatin (X)(G) <18 years: not recommended; ≥18 years; initially 20-40 mg q HS; usual range 20-80 mg/day</p>

Lescol Cap: 20, 40 mg

Lescol XL Tab: 80 mg ext-rel

lovastatin (X)

**Mevacor** <10 years: not recommended; 10-17 years: initially 10-20 mg daily at evening meal; may increase at 4-week intervals; max 40 mg daily; >17 years: initially 20 mg daily at evening meal; may increase at 4-week intervals; max 80 mg/day in single or divided doses; if concomitant fibrates, niacin, or CrCl < 30 mL/min, usual max 20 mg/day

Tab: 10, 20, 40 mg

Altoprev <20 years: not recommended; ≥20 years: initially 20 mg daily at evening meal; may increase at 4-week intervals; max 60 mg/day; if concomitant fibrates, or *niacin*; >1 gm/day, usual max 40 mg/day; if concomitant cyclosporine, *amiodarone*, or *verapamil*, or *CrCl* <30 *mL/min*, usual max 20 mg/day *Tab*: 10, 20, 40, 60 mg ext-rel

- pitavastatin (X)(G) <12 years: not established; initially 2 mg q HS; may increase to 4 mg after 4 weeks; max 4 mg/day; if concomitant erythromycin or CrCl <60 ml/min; 1 mg/day with usual max 2 mg/day; if concomitant rifampin, max 2 mg once daily Livalo Tab: 1, 2, 4 mg</p>
- pravastatin (X) < 8 years: not recommended; 8-13 years: 20 mg daily; >13-18 years: 40 mg daily; >18 years: initially 10-20 mg q HS; usual range 10-40 mg/day; may start at 40 mg/day

Pravachol Tab: 10, 20, 40, 80 mg

rosuvastatin (X)(G) <10 years: not recommended; 10-17 years: 5-20 mg/day; max 20 mg/day; >17 years: initially 10-20 mg q HS; usual range 5-40 mg/day; adjust at 4-week intervals

Crestor Tab: 5, 10, 20, 40 mg

simvastatin (X) <10 years: not recommended; ≥10 years (female post menarche): initially 20 mg q PM; usual range 5-80 mg/day; adjust at 4-week intervals Zocor Tab: 5, 10, 20, 40, 80 mg
</p>

# CHOLESTEROL ABSORPTION INHIBITOR/HMG-COA REDUCTASE INHIBITOR COMBINATION

ezetimibe/simvastatin (X)(G) <17 years: not recommended; ≥17 years: take once daily in the PM; may start at 10/40; swallow whole</p>

Vytorin

Tab: Vytorin 10/10 ezet 10 mg/simva 10 mg Vytorin 10/20 ezet 10 mg/simva 20 mg Vytorin 10/40 ezet 10 mg/simva 40 mg Vytorin 10/80 ezet 10 mg/simva 80 mg

#### ISOBIITYRIC ACID DERIVATIVES AND FIRRATE

Comment: These agents decrease total cholesterol, LDL-C, and TG; increase HDL-C. They are indicated when the primary problem is very high TG level. Side effects include epigastric discomfort, dyspepsia, abdominal pain, cholelithiasis, myopathy, and neutropenia. Before initiating, and at 4-6 weeks, 3 months, and 6 months of therapy, check fasting CBC, lipid profile, LFT, and serum creatinine. Absolute contraindications include severe renal disease and severe hepatic disease.

#### ISOBUTYRIC ACID DERIVATIVES

### FIBRATES (FIBRIC ACID DERIVATIVES)

Antara 43-130 mg daily; max 130 mg/day

Cap: 43, 87, 130 mg

Fenoglide 40-120 mg daily; max 120 mg/day *Tab*: 40, 120 mg

FibriCor 30-105 mg daily; max 105 mg/day

Tab: 30, 105 mg

TriCor 48-145 mg daily; max 145 mg/day

Tab: 48, 145 mg

TriLipix 45-135 mg daily; max 135 mg/day Cap: 45, 135 mg del-rel

Lipofen 50-150 mg daily; max 150 mg/day

Cap: 50, 150 mg

Lofibra 67-200 mg daily; max 200 mg/day

Tab: 67, 134, 200 mg

#### NICOTINIC ACID DERIVATIVES

Comment: Nicotinic acid derivatives decrease total cholesterol, LDL-C, and TG; increase HDL-C. Before initiating and at 4-6 weeks, 3 months, and 6 months of therapy, check fasting lipid profile, LFT, glucose, and uric acid. Side effects include hyperglycemia, upper GI distress, hyperuricemia, hepatotoxicity, and significant transient skin flushing. Take with food and take *aspirin* 325 mg 30 minutes before dose to decrease flushing. Relative contraindications include diabetes, hyperuricemia (gout), and PUD and absolute contraindications include severe gout and chronic liver disease. 

inacin (C)

Niaspan (G) <21 years: not recommended; 375 mg daily for 1st week, then 500 mg daily for 2nd week, then 750 mg daily for 3rd week, then 1 gm daily for weeks 4-7; may increase by 500 mg q 4 weeks; usual range 1-2 gm/day; max 2 gm/day

Tab: 500, 750, 1000 mg ext-rel

Slo-Niacin <12 years: not recommended; ≥12 years: one 250 or 500 mg tab q AM or HS or one-half 750 mg tab q AM or HS

Tab: 250, 500, 750 mg cont-rel

#### BILE ACID SEQUESTRANTS

Comment: Bile acid sequestrants decrease total cholesterol, LDL-C, and increase HDL-C, but have no effect on triglycerides. A relative contraindication is TG  $\geq\!200$  mg/dL and an absolute contraindication is TG  $\geq\!400$  mg/dL. Before initiating and at 4-6 weeks, 3 months, and 6 months of therapy, check fasting lipid profile. Side effects include sandy taste in mouth, abdominal gas, abdominal cramping, and constipation. These agents decrease the absorption of many other drugs.

#### **▶** cholestyramine (C)

Questran Powder for Oral Suspension <12 years: see mfr pkg insert; ≥12 years: initially 1 pkt or scoop daily; usual maintenance 2-4 pkts or scoops daily in 2 divided doses; max 6 pkts or scoops daily

Pwdr: 9 gm pkts; 9 gm equals 4 gm anhydrous cholestyramine resin for reconstitution (60/pck); Bulk can: 378 gm w. scoop

Questran Light <12 years: see mfr pkg insert; ≥12 years: initially 1 pkt or scoop daily; usual maintenance 2-4 pkts or scoops daily in 2 doses

*Light*: 5 gm pkts; 5 gm equals 4 gm anhydrous *cholestyramine* resin (60/pck): *Bulk can*: 210 gm w. scoop

#### colesevelam (B)

Monotherapy: <12 years: not recommended; ≥12 years: 3 tabs bid or 6 tabs once daily or one 1.875 gm pkt bid or one 3.75 gm pkt once daily

WelChol Tab: 625 mg; Pwdr for oral susp: 1.875 gm pwdr pkts (60/carton); 3.75 g pwdr pkts (30/carton) (citrus) (phenylalanine)

Comment: WelChol is indicated as adjunctive therapy to improve glycemic control in patients >18 years with type 2 diabetes. It can be added to *metformin*, sulfonylureas, <u>or</u> insulin alone <u>or</u> in combination with other antidiabetic agents

## colestipol (C)

Colestid <12 years: not recommended; ≥12 years: 2-16 gm daily in a single or divided doses; granules: 5-30 gm daily in a single or divided dose

*Tab*: 1 gm (120); *Granules*: unflavored: 5 gm pkt (30, 90/carton); unflavored bulk: 300, 500 gm w. scoop; orange-flavored: 7.5 gm pkt (60/carton) (aspartame, phenylalanine); orange-flavored bulk: 450 gm w. scoop (aspartame); flavored: 7.5 gm pkt

Colestid Tab initially 2 gm bid; increase by 2 gm bid at 1-2-month intervals; usual maintenance 2-16 gm/day

Tab: 1 g

Comment: colestipol lowers LDL and total cholesterol.

#### ANTILIPID COMBINATIONS

#### Nicotinic Acid Derivative/HMG-CoA Reductase Inhibitors

#### *▶* niacin/lovastatin (X)

Advicor <18 years: not recommended; ≥18 years: swallow whole at bedtime with a low-fat snack; may pretreat with aspirin; start at lowest niacin dose; may titrate niacin by no more than 500 mg/day every 4 weeks; max 2000/40 daily

Tab: Advicor 500/20 nia 500 mg ext-rel/lova 20 mg Advicor 750/20 nia 750 mg ext-rel/lova 20 mg Advicor 1000/20 nia 1000 mg ext-rel/lova 20 mg Advicor 1000/40 nia 1000 mg ext-rel/lova 40 mg

### *▶* niacin/simvastatin (X)

Simcor <18 years: not recommended; ≥18 years: swallow whole at bedtime with a low-fat snack; may pretreat with *aspirin*; start at lowest *niacin* dose; may titrate *niacin* by no more than 500 mg/day every 4 weeks; max 2000/40 daily

Tab: Simcor 500/20 nia 500 mg ext-rel/simva 20 mg

Simcor 750/20 nia 750 mg ext-rel/simva 20 mg Simcor 1000/20 nia 1000 mg ext-rel/simva 20 mg Simcor 500/40 nia 500 mg ext-rel/simva 40 mg Simcor 1000/40 nia 1000 mg ext-rel/simva 40 mg

#### ANTIHYPERTENSIVE/ANTILIPID COMBINATIONS

# Calcium Channel Blocker/HMG-CoA Reductase Inhibitor (Statin) Combinations

#### *⇒* amlodipine/atorvastatin (X)(G)

Caduet <10 years: not recommended; ≥10 years (female, post-menarche):select according to blood pressure and lipid values; titrate amlodipine over 7-14 days; titrate atorvastatin according to monitored lipid values; max amlodipine 10 mg/day and max atorvastatin 80 mg/day; for contraindications and precautions for CCB and statin therapy, see to mfr pkg insert

Tab: Caduet 5/10 amlo 5 mg/ator 10 mg Caduet 5/20 amlo 5 mg/ator 20 mg Caduet 5/40 amlo 5 mg/ator 40 mg Caduet 5/80 amlo 5 mg/ator 80 mg Caduet 10/10 amlo 10 mg/ator 10 mg Caduet 10/20 amlo 10 mg/ator 20 mg Caduet 10/40 amlo 10 mg/ator 40 mg

Caduet 10/80 amlo 10 mg/ator 80 mg

# DYSMENORRHEA: PRIMARY

Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298

#### BENZENEACETIC ACID DERIVATIVE

diclofenac (C) <14 years: not recommended; ≥14 years: 50-100 mg once; then 50 tid
 Cataflam Tab: 50 mg
</p>

Voltaren Tab: 25, 50, 75 mg ent-coat

Voltaren-XR Tab: 100 mg ext-rel

Comment: *diclofenac* is contraindicated with *aspirin* allergy and late (≥30 weeks) pregnancy.

#### FENAMATE

▶ mefenamic acid (C) <14 years: not recommended; >14 years: 500 mg once; then 250 mg q 6 hours for up to 2-3 days; take with food

Ponstel Cap: 250 mg

Comment: Avoid aspirin with a fenamate.

#### COX-2 INHIBITORS

Comment: Cox-2 inhibitors are contraindicated with history of asthma, urticaria, and allergic-type reactions to *aspirin*, other NSAIDs, and sulfonamides, 3rd trimester of pregnancy, and coronary artery bypass graft (CABG) surgery.

celecoxib (C)(G) <18 years: not recommended; ≥18 years: 100-400 mg bid; max 800 mg/day</p>

Celebrex Cap: 50, 100, 200, 400 mg

→ meloxicam(C)(G)

Mobic <2 years, <60 kg: not recommended; ≥2, ≥60 kg: 0.125 mg/kg; max 7.5 mg once daily; ≥18 years: initially 7.5 mg once daily; max 15 mg once daily; Hemodialysis: max 7.5 mg/day

*Tab*: 7.5, 15 mg; *Oral susp*: 7.5 mg/5 ml (100 ml) (raspberry)

Vivlodex <18 years: not established; ≥18 years: initially 5 mg qd; may increase to max 10 mg/day; Hemodialysis: max 5 mg/day

Cap: 5, 10 mg



# THIAZIDE DIURETICS

chlorthalidone (B)(G) initially 30-60 mg daily or 60 mg on alternate days; max 90-120 mg/day

Thalitone Tab: 15 mg

chlorothiazide (B)(G) <6 months: up to 15 mg/lb/day in 2 divided doses; ≥6 months-12 years: 10 mg/lb/day in 2 divided doses; max 375 mg/day; >12 years: 0.5-1 gm/day in a single or divided doses; max 2 gm/day

Diuril Tab: 250\*, 500\*mg; Oral susp: 250 mg/5 ml (237 ml)

► hydrochlorothiazide (B)(G) <12 years: not recommended; ≥12 years:

Esidrix 25-200 mg daily

Tab: 25, 50, 100 mg

Microzide 12.5 mg daily; usual max 50 mg/day

Cap: 12.5 mg

hydroflumethiazide (B) <2 years: not recommended; ≥2 years: 50-200 mg/day in a single or 2 divided doses</p>

Saluron Tab: 50 mg

polythiazide (C) <2 years: not recommended; ≥2 years: 1-4 mg daily Renese Tab: 1, 2, 4 mg

#### POTASSIUM-SPARING DIURETICS

amiloride (B)(G) <12 years: not recommended; ≥12 years: initially 5 mg; may increase to 10 mg; max 20 mg
</p>

Tab: 5 mg

spironolactone (D)(G) <12 years: not recommended; ≥12 years: initially 25-200 mg
 in a single or divided doses; titrate at 2-week intervals
</p>

Aldactone Tab: 25, 50\*, 100\*mg

briamterene (B) <12 years: not recommended; ≥12 years: 100 mg bid; max 300 mg
 Dyrenium Cap: 50, 100 mg
</p>

#### LOOP DIURETICS

bumetanide (C)(G) <18 years: not recommended; ≥18 years: 0.5-2 mg daily; may repeat at 4-5 hour intervals; max 10 mg/day</p>

Tab: 1\* mg

Comment: bumetanide is contraindicated with sulfa drug allergy.

ethacrynic acid (B)(G) ≤1 month: not recommended; >1 month-12 years: initially 25 mg/day; then adjust dose in 25 mg increments; >12 years: max 50-200 mg once daily

Edecrin Tab: 25, 50 mg

 $\triangleright$  ethacrynate sodium (B)(G) <1 month: not recommended; ≥1 month-12 years: use the smallest effective dose; initially 25 mg; then careful stepwise increments in dosage of 25 mg to achieve effective maintenance; ≥12 years: administer smallest dose required to produce gradual weight loss (about 1-2 pounds per day); onset of diuresis usually occurs at 50-100 mg in children ≥12 years; after diuresis has been achieved, the minimally effective dose (usually 50-200 mg/day) may be administered on a continuous or intermittent dosage schedule; dose titrations are usually in 25-50 mg increments to avoid derangement electrolyte and water excretion; the patient should be weighed under standard conditions before and during administration of ethacrynate sodium; the following schedule may be helpful in determining the lowest effective dose: Day 1: 50 mg once daily after a meal; Day 2: 50 mg bid after meals, if necessary; Day 3: 100 mg in the morning and 50-100 mg following the afternoon or evening meal, depending upon response to the morning dose; a few patients may require initial and maintenance doses as high as 200 mg bid; these higher doses, which should be achieved gradually, are most often required in patients with severe, refractory edema

Sodium Edecrin Vial: 50 mg single dose

Comment: Sodium Edecrin is more potent than more commonly used loop and thiazide diuretics. Treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome, short-term management of ascites due to malignancy, idiopathic edema, and lymphedema, short-term management of hospitalized pediatric patients, other than infants, with congenital heart disease or the nephrotic syndrome. IV Sodium Edecrin is indicated when a rapid onset of diuresis is desired, e.g., in acute pulmonary edema or when gastrointestinal absorption is impaired or oral medication is not practical.

furosemide (C)(G) <12 years: not recommended; ≥12 years: initially 20-80 mg as a single dose
</p>

Lasix Tab: 20, 40\*, 80 mg; Oral soln: 10 mg/ml (2, 4 oz w. dropper)

Comment: furosemide is contraindicated with sulfa drug allergy.

torsemide (B) <12 years: not recommended; ≥12 years: 5 mg daily; may increase to 10 mg daily
</p>

Demadex Tab: 5\*, 10\*, 20\*, 100\*mg

#### OTHER DIURETICS

indapamide (B) <12 years: not recommended; ≥12 years: initially 1.25 mg daily; may titrate every 4 weeks if needed; max 5 mg/day

Lozol Tab: 1.25, 2.5 mg

Comment: indapamide is contraindicated with sulfa drug allergy.

metolazone (B)

Mykrox < 12 years: not recommended;  $\ge 12$  years: initially 0.5 mg q AM; max 1 mg/day

Tab: 0.5 mg

**Zaroxolyn** <12 years: not recommended;  $\geq$ 12 years: 2.5-5 mg once daily

Tab: 2.5, 5, 10 mg

Comment: metolazone is contraindicated with sulfa drug allergy.

#### DIURETIC COMBINATIONS

- amiloride/hydrochlorothiazide (B)(G) <12 years: not recommended; ≥12 years: initially 1 tab daily; may increase to 2 tabs/day in a single or divided doses
   Moduretic Tab: amil 5 mg/hydro 50 mg\*
  </p>
- ➤ spironolactone/hydrochlorothiazide (D)(G) <12 years: not recommended; ≥12 years: usual maintenance is 100 mg each of spironolactone and hydrochlorothiazide daily, in a single dose or in divided doses; range 25-200 mg of each component daily depending on the response to the initial titration

Aldactazide 25 Tab: spiro 25 mg/hydro 25 mg Aldactazide 50 Tab: spiro 50 mg/hydro 50 mg

► triamterene/hydrochlorothiazide (C)(G) <12 years: not recommended; ≥12 years:

Dyazide 1-2 caps once daily

Cap: triam 37.5 mg/hydro 25 mg

Maxzide 1 tab once daily

Tab: triam 75 mg/hydro 50 mg\*

Maxzide-25 1-2 tabs once daily

Tab: triam 37.5 mg/hydro 25 mg\*



# **ENCOPRESIS**

#### INITIAL BOWEL EVACUATION

- mineral oil (C) 1 oz x 1 day
- bisacodyl (B) <12 years: 1/2 suppository daily prn; ≥12 years: 1 suppository daily prn</p>

Dulcolax Rectal supp: 10 mg

*glycerin* suppository <6 years: 1 pediatric suppository; ≥6 years: 1 adult suppository

#### **MAINTENANCE**

mineral oil (C) 5-15 ml once daily

multivitamin (A) 1 daily

Comment: Mineral oil can inhibit absorption of fat-soluble vitamins.

# **ENURESIS: PRIMARY, NOCTURNAL**

#### **VASOPRESSIN**

desmopressin acetate (B)

 $\vec{DDAVP}$  <6 years: not recommended;  $\geq$ 6 years: usual dosage 0.1-1.2 mg/day in 2-3 divided doses; 0.2 mg q HS prn for nocturnal enuresis

Tab: 0.1\*, 0.2\*mg

DDAVP Rhinal Tube <6 years: not recommended;  $\geq$ 6 years: 10 mcg or 0.1 ml of soln each nostril (20 mcg total dose) q HS prn; max 40 mcg total dose

Nasal spray: 10 mcg/actuation (5 ml, 50 sprays); Rhinal tube: 0.1 mg/ml (2.5 ml)

## TRICYCLIC ANTIDEPRESSANT (TCA)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose; max 300 mg q HS
  </p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

Anafranil Cap: 25, 50, 75 mg

→ desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

ightharpoonup imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg Cap: 75, 100, 125, 150 mg

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid-qid; max 150 mg/day</p>

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
</p>

Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg



# **EPICONDYLITIS**

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# **EPIDIDYMITIS**

Comment: The following treatment regimens for epididymitis are published in the 2015 CDC Transmitted Diseases Treatment Guidelines. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms. Empiric treatment requires concomitant treatment of chlamydia. Treat all sexual contacts. Patients who are HIV-positive should receive the same treatment as those who are HIV-negative.

#### RECOMMENDED REGIMEN

## Regimen 1

ceftriaxone (B)(G) 250 mg IM in a single dose plus
 doxycycline (D)(G) 100 mg bid x 10 days

# RECOMMENDED REGIMENS: LIKELY CAUSED BY ENTERIC ORGANISMS

# Regimen 1

levofloxacin (C) 500 mg daily x 10 days

# Regimen 2

ofloxacin (C)(G) 300 mg bid x 10 day

#### DRUG BRANDS AND DOSE FORMS

ceftriaxone (B)(G)

Rocephin Vial: 250, 500 mg; 1, 2 g

doxycycline (D)(G)

Acticlate Tab: 75, 150\*\* mg

**Adoxa** *Tab*: 50, 75, 100, 150 mg ent-coat **Doryx** *Tab*: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100, 130, 200 I

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: doxycycline is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

levofloxacin (C)

Levaquin *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol) Comment: is contraindicated <18 years-of-age, and during pregnancy, and lactation. Risk of tendonitis or tendon rupture.

ofloxacin (C)(G)

Floxin Tab: 200, 300, 400 mg

Comment: *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

# ERYSIPELAS

**Comment**: Erysipelas is most commonly due to GABHS (Group A beta-hemolytic Strept).

#### TREATMENT OF CHOICE

penicillin V potassium (B) <12 years: 25-75 mg/kg day divided q 6-8 hours x 10 days; see page 572 for dose by weight table; ≥12 years: 250-500 mg q 6 hours x 10 days Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)</p>

#### TREATMENT IF PENICILLIN ALLERGIC

> erythromycin base (B)(G) 30-40 mg/kg/day divided q 6 hours x 10 days; >40 kg: 250 mg q 6 hours x 10 days

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

▶ erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

# EYE PAIN

Acetaminophen for IV Infusion see Pain page 296

#### OPHTHALMIC NSAIDS

Comment: Concomitant contact lens wear is contraindicated during therapy. Etiology of eye pain must be known prior to use of these agents

- ► ketorolac tromethamine (C) <3 years: not recommended; ≥3 years: 1 drop affected eye qid for up to 4 days

Acular Ophth soln: 0.5% (3, 5, 10 ml; benzalkonium chloride)

Acular LS Ophth soln: 0.4% (5 ml; benzalkonium chloride)

Acular PF Ophth soln: 0.5% (0.4 ml; 12 single-use vials/carton) (preservative-free)

> nepafenac (C) <10 years: not recommended; ≥10 years: 1 drop affected eye tid Nevanac Ophthalmic Suspension Ophth susp: 0.1% (3 ml) (benzalkonium chloride)

#### **OPHTHALMIC STEROIDS**

**Comment:** Contraindications: ocular fungal, viral, <u>or</u> mycobacterial infections. Effectiveness of treatment should be assessed after 2 days. The corticosteroid should be tapered and treatment concluded within 14 days if possible due to risk of corneal <u>and/or</u> scleral thinning with prolonged use.

difluprednate (C) <12 years: not recommended; ≥12 years: 1 drop affected eye qid; 
 Post-op pain: beginning 24 hours after surgery, 1 drop affected eye qid; continue for 2 weeks post-op; then bid x 1 week; then taper until resolved
</p>

Durezol Ophthalmic Solution Ophth emul: 0.05% (5 ml)

▶ etabonate (C) <12 years: not recommended; ≥12 years: 1 drop affected eye qid Alrex Ophthalmic Solution Ophth emul: 0.2% (5 ml) (benzalkonium chloride)

# FAC

# FACIAL HAIR, EXCESSIVE/UNWANTED

#### TOPICAL HAIR GROWTH RETARDANT

▶ eflornithine 13.9% cream (C) <12 years: not recommended; ≥12 years: apply a thin layer to affected areas of face and under the chin bid at least 8 hours apart; rub in thoroughly; do not wash treated area for at least 4 hours following application</p>

Vaniqa Crm: 13.9% (30, 60 gm)

**Comment**: After **Vaniqa** dries, may apply cosmetics <u>or</u> sunscreen. Hair removal techniques may be continued as needed.

# **FECAL ODOR**

bismuth subgallate powder (B)(OTC) 1-2 tabs tid with meals

Devrom Chew tab: 200 mg; Cap: 200 mg

Comment: Devron is an internal (oral) deodorant for control of odors from ileostomy or colostomy drainage or fecal incontinence.



# FEVER (PYREXIA)

#### ACETAMINOPHEN FOR IV INFUSION

acetaminophen injectable (B)(G) <2 years: not recommended; 2-13 years <50 kg: 15 mg/kg q 6 hours prn or 12.5 mg/kg q 4 hours prn; max 750 mg single dose; max 75 mg/kg per day; >13 years: administer by IV infusion over 15 minutes; 1,000 mg a 6 hours prn or 650 mg a 4 hours prn; max 4,000 mg/day

Ofirmev Vial: 10 mg/ml (100 ml) (preservative-free)

**Comment:** The **Ofirmev** vial is intended for single use. If any portion is withdrawn from the vial, use within 6 hours. Discard the unused portion. For pediatric patients, withdraw the intended dose and administer via syringe pump. Do not admix Ofirmev with any other drugs. Ofirmev is physically incompatible with *diazepam* and *chlorpromazine* hydrochloride.

#### *⇒* acetaminophen (B)(G)

Children's Tylenol (OTC) 10-20 mg/kg q 4-6 hours prn

Oral susp: 80 mg/tsp

4-11 months (12-17 lb): 1/2 tsp q 4 hours prn; 12-23 months (18-23 lb): 3/4 tsp q 4 hours prn; 2-3 years (24-35 lb): 1 tsp q 4 hours prn; 4-5 years(36-47 lb): 1 tsp q 4 hours prn; 6-8 years (48-59 lb): 2 tsp q 4 hours prn; 9-10 years (60-71 lb): 2 tsp q 4 hours prn; 11 years (72-95 lb): 3 tsp q 4 hours prn; All: max 5 doses/day

Elix: 160 mg/5 ml (2, 4 oz)

Chew tab: 80 mg

2-3 years (24-35 lb): 2 tabs q 4 hours prn; 4-5 years (36-47 lb): 3 tabs q 4 hours prn; 6-8 years (48-59 lb): 4 tabs q 4 hours prn; 9-10 years (60-71 lb): 5 tabs q 4 hours prn; 11 years (72-95 lb): 6 tabs q 4 hours prn; All: max 5 doses/day

*Junior Strength:* 

6-8 years: 2 tabs q 4 hours prn; 9-10 years: 2 tabs q 4 hours prn; 11 years: 3 tabs q 4 hours prn; 12 years: 4 tabs q 4 hours prn; All: max 5 doses/day

Chew tab: 160 mg

Junior cplt: 160 mg

Infant's Drops and Suspension: 80 mg/0.8 ml (1/2, 1 oz)

<3 months: 0.4 ml q 4 hours prn; 4-11 months: 0.8 ml q 4 hours prn; 12-23 months: 1.2 ml q 4 hours prn; 2-3 years (24-35 lb): 1.6 ml q 4 hours prn; 4-5 years (36-47 lb): 2.4 ml q 4 hours prn; All: max 5 doses/day

Extra Strength Tylenol (G)(OTC) <12 years: not recommended; ≥12 years: 500-1000 mg q 4-6 hours prn; max 4 gm/day

*Tab/Cplt/Gel tab/Gel cap*: 500 mg; *Liq*: 500 mg/15 ml (8 oz)

FeverAll Extra Strength Tylenol (OTC) <3 months: not recommended; 3-36 months: 80 mg q 4 hours prn; 3-6 years: 120 mg q 4 hours prn; ≥6 years: 325 mg q 4 hours prn; *Rectal supp*: 80, 120, 325 mg (6/carton)

Maximum Strength Tylenol Sore Throat (OTC) <12 years: not recommended; ≥12 years: 500-1000 mg q 4-6 hours prn

*Liq*: 1000 mg/30 ml (8 oz)

Tylenol (OTC) <6 years: not recommended; 6-11 years: 325 mg q 4-6 hours prn; max 1.625 gm/day; ≥12 years: 650 mg q 4-6 hours; max 4 gm/day aspirin (D)(G)

Bayer (OTC) <6 years: not recommended; 6-11 years: 325 mg q 4-6 hours prn; max 1.625 gm/day; >11 years: 325-650 mg q 4 hours prn; max: 5 doses/day Tab/Cplt: 325 mg ext-rel

Extra Strength Bayer (OTC) <6 years: not recommended; 6-11 years: 325 mg q 4-6 hours prn; max 1.625 gm/day; ≥12 years: 500-1000 mg q 4-6 hours prn; max 4 gm/day

Cplt: 500 mg

Extended-Release Bayer 8 Hour (OTC) <12 years: not recommended; ≥12 years: 650-1300 mg q 8 hours prn

Cplt: 650 mg ext-rel

Comment: *aspirin*-containing medications are contraindicated with history of allergic-type reaction to *aspirin*, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

≥ aspirin/caffeine (D)(G)

Anacin (OTC) <6 years: not recommended; 6-12 years: 400 mg q 4 hours prn; max 2 gm/day; ≥12 years: 800 mg q 4 hours prn; max 4 gm/day

Tab/Cplt: 400 mg

Anacin Maximum Strength (OTC) <12 years: not recommended; ≥12 years: 1 gm tid-qid

Tab: 500 mg

Comment: aspirin-containing medications are contraindicated with history of allergic-type reaction to aspirin, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

aspirin/antacid (D)(G)

Extra Strength Bayer Plus (OTC) <12 years: not recommended; ≥12 years: 500 mg-1 gm q 4-6 hours prn; usual max 4 gm/day

*Cplt*: 500 mg *aspirin* with *calcium carbonate* 

Bufferin (OTC) <12 years: not recommended; ≥12 years: 650 mg q 4 hours; max 3.9 mg/day

Tab: 325 mg aspirin with calcium carbonate, magnesium carbonate, and magnesium oxide

Comment: aspirin-containing medications are contraindicated with history of allergic-type reaction to aspirin, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

bubrofen (B; not for use in 3rd)(G)

Comment: *ibuprofen* is contraindicated in children <6 months-of-age.

Children's Advil (OTC), ElixSure IB (OTC), Motrin (OTC), PediaCare (OTC), PediaProfen (OTC)5-10 mg/kg q 6-8 hours; max 40 mg/kg/day; <24 lb (<2 years):individualize; 24-35 lb (2-3 years): 5 ml q 6-8 hours prn; 36-47 lb (4-5 years): 7.5 ml q 6-8 hours prn; 48-59 lb (6-8 years): 10 ml  $\underline{or}$  2 tabs q 6-8 hours prn; 60-71 lb (9-10 years): 12.5 ml  $\underline{or}$  2 tabs q 6-8 hours prn; 72-95 lb (11 years): 15 ml or 3 tabs q 6-8 hours prn

Oral susp: 100 mg/5 ml (2, 4 oz) (berry); Junior tabs: 100 mg

Children's Motrin Drops (OTC), PediaCare Drops (OTC) n <24 lb (<2 years): individualize; 24-35 lb (2-3 years): 2.5 ml q 6-8 hours prn;  $Oral\ drops$ : 50 mg/1.25 ml (15 ml; berry)

Children's Motrin Chewables and Caplets (OTC) 48-59 lb (6-8 years): 200 mg q 6-8 hours prn; 60-71 lb (9-10 years): 250 mg q 6-8 hours prn; 72-95 lb (11 years): 300 mg q 6-8 hours prn; ≥12 years: 400 mg q 4 hours prn

Chew tab: 100\*mg (citrus; phenylalanine)

Cplt: 100 mg

Motrin (OTC) <6 months: not recommended; >6 months, fever <102.5: 5 mg/kg q6-8 hours prn; >6 months, fever >102.5: 10 mg/kg q 6-8 hours prn; All: max 40 mg/kg/day; ≥12 years: 400 mg q 6 hours prn

*Tab:* 400 mg; *Cplt:* 100\*mg; *Chew tab:* 50\*, 100\*mg (citrus; phenylalanine); *Oral susp:* 100 mg/5 ml (4, 16 oz) (berry); *Oral drops:* 40 mg/ml (15 ml) (berry)

Advil (OTC), Motrin IB (OTC), Nuprin (OTC) <12 years: not recommended; ≥12 years: 200-400 mg q 4-6 hours; max 1.2 gm/day

Tab/Cplt/Gel cap: 200 mg

## naproxen (B)(G)

Aleve (OTC) <2 years: not recommended;  $\geq$ 2 years-6 years: 2.5-5 mg/kg bid-tid; max: 15 mg/kg/day; 400 mg x 1 dose; then 200 mg q 8-12 hours prn; max 10 days

Tab/Cplt/Gel cap: 200 mg

Anaprox <12 years: not recommended;  $\geq$ 12 years: 550 mg x 1 dose; then 550 mg q 12 hours or 275 mg q 6-8 hours prn; max 1.375 gm first day and 1.1 gm/day thereafter

Tab: 275 mg

**Anaprox DS** <12 years: not recommended; ≥12 years: 1 tab bid

*Tab*: 550 mg

EC-Naprosyn <12 years: not recommended; ≥12 years: 375 or 500 mg bid prn; may increase dose up to max 1500 mg/day as tolerated

*Tab*: 375, 500 mg del-rel

Naprelan <12 years: not recommended;  $\geq$ 12 years: 1 gm daily or 1.5 gm daily for limited time; max 1 gm/day thereafter

Tab: 375, 500 mg

Naprosyn <12 years: not recommended;  $\geq$ 12 years: initially 500 mg, then 500 mg q 12 hours <u>or</u> 250 mg q 6-8 hours prn; max 1.25 gm first day and 1 gm/day thereafter

Tab: 250, 375, 500 mg; Oral susp: 125 mg/5 ml (473 ml) (pineapple-orange)

# **FIBROMYALGIA**

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## SEROTONIN AND NOREPINEPHRINE REUPTAKE INHIBITORS (SNRIs)

- duloxetine (C)(G) <12 years: not recommended; ≥12 years: swallow whole; initially
   30 mg once daily x 1 week; then increase to 60 mg once daily; max 120 mg/day
   Cymbalta Cap: 20, 30, 60 mg ent-coat pellets
  </p>
- milnacipran (C)(G) <17 years: not recommended; ≥17 years: Day 1: 12.5 mg once; Days 2-3: 12.5 mg bid; Days 4-7: 25 mg bid; max 100 mg bid Savella Tab: 12.5, 25, 50, 100 mg

#### GAMMA-AMINOBUTYRIC ACID ANALOG

pabapentin (C) <3 years: not recommended; 3-12 years: initially 10-15 mg/kg/day in 3 divided doses; max 12 hours between doses; titrate over 3 days; 3-4 years: titrate to 40 mg/kg/day; 5-12 years: titrate to 25-35 mg/kg/day; max 50 mg/kg/day; >12 years: initially 300 mg on Day 1; then 600 mg on Day 2; then 900 mg on Days 3-6; then 1200 mg on Days 7-10; then 1500 mg on Days 11-14; titrate up to 1800 mg on Day 15; take entire dose once daily with the evening meal; do not crush, split, or chew

Gralise (C) Tab: 300, 600 mg

Neurontin (G) *Tab*: 600\*, 800\* mg; *Cap*: 100, 300, 400 mg; *Oral soln*: 250 mg/5 ml (480 ml) (strawberry-anise)

**Comment**: Avoid abrupt cessation of *gabapentin*. To discontinue, withdraw gradually over 1 week or longer.

gabapentin enacarbil (C) <12 years: not recommended: ≥12 years: 600 mg once daily at about 5: 00 PM; if dose not taken at recommended time, next dose should be taken the following day; swallow whole; take with food; CrCl 30-59 mL/min: 600 mg on Day 1, Day 3, and every day thereafter; CrCl <30 mL/min: or on hemodialysis: not recommended
</p>

Horizant Tab: 300, 600 mg ext-rel

**Comment**: Avoid abrupt cessation of *gabapentin enacarbil*. To discontinue, withdraw gradually over 1 week or longer.

#### a2-DELTA LIGAND

pregabalin (GABA analog) (C)(V) <18 years: not recommended; ≥18 years: initially 50 mg tid; may titrate to 100 mg tid within one week; max 600 mg divided tid; discontinue over one week</p>

Lyrica Cap: 25, 50, 75, 100, 150, 200, 225, 300 mg; Oral soln: 20 mg/ml

#### OTHER AGENTS

amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 20 mg q HS; may increase gradually to max 50 mg q HS
 Tab: 10, 25, 50, 75, 100, 150 mg
</p>

cyclobenzaprine (B)(G) <15 years: not recommended; ≥15 years: 10 mg tid; usual range 20-40 mg/day in divided doses; max 60 mg/day x 2-3 weeks or 15 mg ext-rel once daily; max 30 mg ext-rel/day x 2-3 weeks
</p>

Amrix Cap: 15, 30 mg ext-rel

Fexmid Tab: 7.5 mg

Flexeril Tab: 5, 10 mg

► eszopiclone (pyrrolopyrazine) (C)(IV)(G) <18 years: not recommended; ≥18 years: 1-3 mg; max 3 mg/day x 1 month; do not take if unable to sleep for at least 8 hours before required to be active again; delayed effect if taken with a meal</p>

Lunesta Tab: 1, 2, 3 mg

Flurazepam (X)(IV)(G) <18 years: not recommended; ≥18 years: 15 mg q HS; may increase to 30 mg q HS</p>

Dalmane Cap: 15, 30 mg

trazodone (C)(G) <18 years: not recommended; ≥18 years: 50 mg q HS
 Desyrel Tab: 50, 100, 150, 300 mg
</p>

triazolam (X)(IV)(G) <18 years: not recommended; ≥18 years: 0.125 mg q HS, may increase gradually to 0.5 mg
</p>

Halcion Tab: 0.125, 0.25\*mg

zaleplon (imidazopyridine) (C)(IV) <12 years: not recommended; ≥12 years: 5-10 mg at HS or after going to bed if unable to sleep; do not take if unable to sleep for at least 4 hours before required to be active again; max 20 mg/day x 1 month; delayed effect if taken with a meal
</p>

Sonata Cap: 5, 10 mg (tartrazine)

Comment: Sonata is indicated for the treatment of insomnia when a middle-ofthe-night awakening is followed by difficulty returning to sleep.

zolpidem oral solution spray (imidazopyridine hypnotic) (C)(IV) <12 years: not recommended; ≥12 years: 2 actuations (10 mg) immediately before bedtime; 
 Debilitated, or hepatic impairment: 2 actuations (5 mg); max 2 actuations (10 mg)
</p>

**ZolpiMist** *Oral soln spray*: 5 mg/actuation (60 metered actuations) (cherry) **Comment**: The lowest dose of *zolpidem* in all forms is recommended for females as drug elimination is slower than in men.

zolpidem tabs (pyrazolopyrimidine hypnotic) (B)(IV)(G) <18 years: not recommended; ≥18 years: 5-10 mg or 6.25-12.5 ext-rel q HS prn; max 12.5 mg/day x 1 month; do not take if unable to sleep for at least 8 hours before required to be active again; delayed effect if taken with a meal
</p>

Ambien Tab: 5, 10 mg

Ambien CR Tab: 6.25, 12.5 mg ext-rel

**Comment**: The lowest dose of *zolpidem* in all forms is recommended for females as drug elimination is slower than in males.

zolpidem sublingual tabs (imidazopyridine hypnotic) (C)(IV) <18 years: not recommended; ≥18 years: dissolve 1 tab under the tongue; allow to disintegrate completely before swallowing; take only once per night and only if at least 4 hours of bedtime remain before planned time for awakening
</p>

Edluar SL Tab: 5, 10 mg

Intermezzo SL Tab: 1.75, 3.5 mg

Comment: Intermezzo is indicated for the treatment of insomnia when a middle-of-the-night awakening is followed by difficulty returning to sleep. The lowest dose of *zolpidem* in all forms is recommended for females as drug elimination is slower than in males

# FIFTH DISEASE (ERYTHEMA INFECTIOSUM)

Antipyretics see Fever page 136



# **FLATULENCE**

**▶** simethicone (C)(G)

Gas-X (OTC) 2-4 tabs pc and HS prn

*Tab*: 40, 80, 125 mg; *Cap*: 125 mg **Mylicon (OTC)** 2-4 tabs pc and HS prn

Tab: 40, 80, 125 mg; Cap: 125 mg

Phazyme-95 1-2 tabs with each meal and HS prn

Tab: 95 mg

Phazyme Infant Oral Drops <2 years: 0.3 ml qid pc and HS prn; 2-12 years: 0.6 ml qid pc and HS prn; >12 years: 1.2 ml qid pc and HS prn; Oral drops: 40 mg/0.6 ml (15, 30 ml w. calibrated dropper) (orange)(alcohol-free)

Maximum Strength Phazyme 1-2 caps with each meal and HS prn Cap: 125 mg

# FLUORIDATION, WATER, < 0.6 PPM

## ▶ fluoride (NE)(G)

**Luride** Water fluoridation 0.3-0.6 ppm: <3 years: use drops; 6 months-3 years: 0.125 mg daily; 4-6 years: 0.25 mg daily; 7-16 years: 0.5 mg daily; Water fluoridation <0.3 ppm: <3 years: use drops; 6 months-3 years: 0.25 mg daily; 3-6 years: 0.5 mg daily; >6-16 years: 1 mg daily

Chew tab: 0.25, 0.5, 1 mg (sugar-free)

**Luride Drops** *Water fluoridation* 0.3-0.6 ppm: 6 months-3 years: 0.25 ml once daily; 4-6 years: 0.5 ml once daily; 7-16 years: 1 ml once daily; *Water fluoridation* <0.3 ppm: 6 months-3 years: 0.5 ml once daily; 4-6 years: 1 ml once daily; 7-16 years: 2 ml daily

Oral drops: 0.5 mg/ml (50 ml) (sugar-free)

#### COMBINATION AGENTS

▶ fluoride/vitamin a/vitamin d/vitamin c (NE)(G) Water fluoridation 0.3-0.6 ppm: <3 years: not recommended; 3-6 years: 0.25 mg fluoride/day; 7-16 years: 0.5 mg fluoride/day; Water fluoridation <0.3 ppm: <6 months: not recommended; 6 months-3 years: 0.25 mg fluoride/day; 4-6 years: 0.5 mg fluoride/day; 7-16 years: 1 mg fluoride/day

#### Tri-Vi-Flor Drops

Oral drops: fluoride 0.25 mg/vit a 1500 u/vit d 400 u/vit c 35 mg per ml (50 ml) Oral drops: fluoride 0.5 mg/vit a 1500 u/vit d 400 u/vit c 35 mg per ml (50 ml)

▶ fluoride/vitamin a/vitamin d/vitamin c/iron (NE) Water fluoridation 0.3-0.6 ppm: <3 years: not recommended; 3-6 years: 0.25 mg fluoride/day; 7-16 years: 0.5 mg fluoride/day; Water fluoridation <0.3 ppm: <6 months: not recommended; 6 months-3 years: 0.25 mg fluoride/day; 4-6 years: 0.5 mg fluoride/day; 7-16 years: 1 mg fluoride/day</p>

#### Tri-Vi-Flor w. Iron Drops

Oral drops: fluoride 0.25 mg/vit a 1500 u/vit d 400 u/vit c 35 mg/iron 10 mg per ml (50 ml)



# **FOLLICULITIS BARBAE**

## TOPICAL AGENTS

benzoyl peroxide (B) apply after shaving; may discolor clothing and linens.

Banzas W initially apply to affected area once daily; increase to hid tid.

Benzac-W initially apply to affected area once daily; increase to bid-tid as tolerated

Gel: 2.5, 5, 10% (60 gm)

Benzac-W Wash wash affected area bid

Wash: 5% (4, 8 oz); 10% (8 oz)

Benzagel apply to affected area one or more times/day

Gel: 5, 10% (1.5, 3 oz) (alcohol 14%)

Benzagel Wash wash affected area bid

Gel: 10% (6 oz)

Desquam X5 wash affected area bid

Wash: 5% (5 oz)

Desquam X10 wash affected area bid

Wash: 10% (5 oz)

Triaz apply to affected area daily bid

Lotn: 3, 6, 9% (bottle), 3% (tube); Pads: 3, 6, 9% (jar)

**ZoDerm** apply once <u>or</u> twice daily

Gel: 4.5, 6.5, 8.5% (125 ml); Crm: 4.5, 6.5, 8.5% (125 ml); Clnsr: 4.5, 6.5, 8.5% (400 ml)

clindamycin topical (B) apply bid

Cleocin T Pad: 1% (60/pck; alcohol 50%); Lotn: 1% (60 ml); Gel: 1% (30, 60 ml); Soln w. applicator: 1% (30, 60 ml) (alcohol 50%)

Clindagel Gel: 1% (42, 77 gm)

Clindets Pad: 1% (60/pck)

Evoclin Foam: 1% (50, 100 gm) (alcohol)

clindamycin/benzoyl peroxide topical (C) benzoyl peroxide may discolor clothing and linens; <12 years: not recommended; ≥12 years:
</p>

Acanya (G) apply qd-bid

Gel: clin 1.2%/benz 2.5% (50 gm)

BenzaClin apply bid

Gel: clin 1%/benz 5% (25, 50 gm)

Duac apply daily in the evening

Gel: clin 1%/benz 5% (45 gm)

Onexton Gel apply once daily

Gel: clin 1.2%/benz 3.75% (50 gm pump) (alcohol-free) (preservative-free)

dapsone topical (C) <12 years: not recommended; ≥12 years: apply bid
</p>

**Aczone** *Gel*: 5% (30 gm)

▶ hydrocortisone 1% (C)(OTC)(G) apply q HS; see Topical Corticosteroids page 494

► *tazarotene* (X)(G) <12 years: not recommended; ≥12 years: apply daily at HS

Avage Cream Crm: 0.1% (30 gm)

**Tazorac Cream** *Crm*: 0.05, 0.1% (15, 30, 60 gm)

**Tazorac Gel** Gel: 0.05, 0.1% (30, 100 gm)

► tretinoin (C) <12 years: not recommended; ≥12 years: apply q HS

Avita Crm/Gel: 0.025% (20, 45 gm)

Renova Crm: 0.02% (40 gm); 0.05% (40, 60 gm)

Retin-A Cream Crm: 0.025, 0.05, 0.1% (20, 45 gm)

Retin-A Gel Gel: 0.01, 0.025% (15, 45 gm) (alcohol 90%)

**Retin-A Liquid** *Liq*: 0.05% (28 ml) (alcohol 55%)

Retin-A Micro Microspheres: 0.04, 0.1% (20, 45 gm)

### FOREIGN BODY: ESOPHAGUS

Vial: 1 mg/ml w. diluent

Comment: *glucagon* facilitates passage of foreign body from esophagus into stomach.

### **FOREIGN BODY: EYE**

proparacaine (NE) 1-2 drops to anesthetize surface of eye; then flush with normal saline

Ophthaine Ophth soln: 0.5% (15 ml)

Comment: *proparacaine* facilitates the search, location, and removal of foreign body and examination of the cornea.



### **GASTRITIS**

Antacids see GERD page 144 H2 Antagonists see GERD page 146



### **GASTROESOPHAGEAL REFLUX DISEASE (GERD)**

Comment: Precipitators of gastric reflux include narcotics, benzodiazepines, calcium antagonists, alcohol, nicotine, chocolate, and peppermint.

### ANTACIDS

Comment: Antacids with *aluminum hydroxide* may potentiate constipation. Antacids with *magnesium hydroxide* may potentiate diarrhea.

*aluminum hydroxide* (C) <12 years: not recommended; ≥12 years:

ALTernaGEL (OTC) 5-10 ml between meals and HS prn; max 90 ml/day *Liq:* 500 mg/5 ml (5, 12 oz)

Amphojel (OTC) 10 ml 5-6 times/day between meals and HS prn; max 60 ml/day Oral susp: 320 mg/5 ml (12 oz)

Amphojel Tab (OTC) 600 mg 5-6 times/day between meals and HS prn; max 3.6 gm/day

Tab: 300, 600 mg

aluminum hydroxide/magnesium hydroxide (C)(OTC)(G) <12 years: not recommended; ≥12 years:
</p>

Maalox 10-20 ml qid and HS prn

Oral susp: 200 mg per 5 ml (5, 12, 26 oz) (mint, lemon, cherry)

Maalox Therapeutic Concentrate 10-20 ml qid pc and HS prn

Oral susp: alum 600 mg/mag 300 mg per 5 ml (12 oz) (mint)

aluminum hydroxide/magnesium hydroxide/simethicone (C)(OTC)(G) <12 years: not recommended; ≥12 years:

Maalox Plus 10-20 ml qid pc and HS prn

Tab: alum 200 mg/mag 200 mg/sim 25 mg

Extra Strength Maalox Plus 10-20 ml qid pc and HS prn

Tab: alum 350 mg/mag 350 mg/sim 30 mg

Oral susp: alum 500 mg/mag 450 mg/sim 40 mg per 5 ml (5, 12, 26 oz)

Extra Strength Maalox Plus Tab 1-3 tabs qid pc and HS prn

Tab: alum 350 mg/mag 350 mg/sim 30 mg

Mylanta 10-20 ml between meals and HS prn

Liq: alum 200 mg/mag 200 mg/sim 20 mg per 5 ml (5, 12, 24 oz)

Mylanta Double Strength 10-20 ml between meals and HS prn

Liq: alum 700 mg/mag 400 mg/sim 40 mg per 5 ml (5, 12, 24 oz)

aluminum hydroxide/magnesium carbonate (C)(OTC)(G) <12 years: not recommended: ≥12 years:
</p>

Maalox HRF 10-20 ml gid pc and HS prn

*Oral susp: alum 280 mg/mag 350 mg per 10 ml (10 oz)* 

aluminum hydroxide/magnesium trisilicate (C)(G) <12 years: not recommended;
 ≥12 years:
</p>

Gaviscon chew 2-4 tabs qid pc and HS prn

Tab: alum 80 mg/mag 20 mg

Gaviscon Liquid 15-30 ml qid pc and HS prn

Liq: alum 95 mg/mag 359 mg per 15 ml (6, 12 oz)

Gaviscon Extra Strength 2-4 tabs qid pc and HS prn

Tab: alum 160 mg/mag 105 mg

Gaviscon Extra Strength Liquid 10-20 ml qid prn

*Liq: alum 508 mg/mag 475 mg per 10 ml (12 oz)* 

aluminum hydroxide/magnesium hydroxide/simethicone (C)(OTC)(G) <12 years:
 not recommended; ≥12 years:
</p>

Maalox Maximum Strength 10-20 ml qid prn; max 60 ml/day

*Oral susp: alum* 500 mg/*mag* 450 mg/*sim* 40 mg per 5 ml (5, 12, 26 oz) (mint, cherry)

calcium carbonate (C)(OTC)(G)

Children's Mylanta Tab <2 years: not recommended; 2-5 years (24-47 lb): 1 tab as needed up to tid; 6-11 years (48-95 lb): 2 tabs as needed up to tid

Tab: 400 mg

Children's Mylanta <2 years: not recommended; 2-5 years (24-47 lb): 1 tab as needed up to tid; 6-11 years (48-95 lb): 2 tabs as needed up to tid; >11 years: 2-4 tabs as needed

*Liq:* 400 mg/5 ml (4 oz)

Maalox Tab <12 years: not recommended; ≥12 years: chew 2-4 tabs prn; max 12 tabs/day

Chew tab: 600 mg (wild berry, lemon, wintergreen) (phenylalanine)

Maalox Maximum Strength Tab <12 years: not recommended; ≥12 years: 1-2 tabs prn; max 8 tabs/day

*Tab*: 1 gm (wild berry, lemon, wintergreen; phenylalanine)

**Rolaids Extra Strength** <12 years: not recommended;  $\geq$ 12 years: 1-2 tabs dissolved in mouth <u>or</u> chewed q 1 hour prn; max 8 tabs/day

Tab: 1000 mg

Tums <12 years: not recommended;  $\geq$ 12 years: 1-2 tabs dissolved in mouth or chewed q 1 hour prn; max 16 tabs/day

*Tab*: 500 mg

Tums E-X <12 years: not recommended;  $\geq$ 12 years: 1-2 tabs dissolved in mouth or chewed q 1 hour prn; max 16 tabs/day

Tab: 750 mg

calcium carbonate/magnesium hydroxide (C) <12 years: not recommended; ≥12 years:
</p>

Mylanta Tab 2-4 tabs between meals and HS prn

Tab: calib 350 mg/mag 150 mg

Mylanta DS Tab 2-4 tabs between meals and HS prn

Tab: calib 700 mg/mag 300 mg

Rolaids Sodium-Free 1-2 tabs dissolved in mouth <u>or</u> chewed q 1 hour as needed *Tab: calib* 317 mg/mag 64 mg

calcium carbonate/magnesium carbonate (C)

Mylanta Gel Caps (OTC) <12 years: not recommended; ≥12 years: 2-4 caps prn Gel cap: calib 550 mg/mag 125 mg

*▶* dihydroxyaluminum (NE)

Rolaids (OTC) 1-2 tabs dissolved in mouth or chewed q 1 hour prn; max 24 tabs/day

Tab: 334 mg

#### H2 ANTAGONISTS

cimetidine (B)(OTC)(G) <16 years: not recommended; ≥16 years: 800 mg bid or
 400 mg qid; max 12 weeks
</p>

Tagamet 800 mg bid or 400 mg qid; max 12 weeks

Tab: 200, 300, 400\*, 800\*mg

Tagamet HB Prophylaxis: 1 tab ac; Treatment: 1 tab bid

Tab: 200 mg

Tagamet HB Oral Suspension Prophylaxis: 1-3 tsp ac; Treatment: 1 tsp bid Oral susp: 200 mg/20 ml (12 oz)

Tagamet Liquid Liq: 300 mg/5 ml (mint-peach) (alcohol 2.8%)

Tab: 20 mg

Pepcid 20-40 mg bid; max 6 weeks

Tab: 20 mg; Tab: 40 mg; Oral susp: 40 mg/5 ml (50 ml)

Pepcid AC 1 tab ac; max 2 doses/day

Tab/Rapid dissolving tab: 10 mg

Pepcid Complete (OTC) 1 tab ac; max 2 doses/day

Tab: fam 10 mg/CaCO 800 mg/mg hydroxide 165 mg

Pepcid RPD Tab: 20, 40 mg rapid dissolv

nizatidine (B)(OTC)(G) <12 years: not recommended; ≥12 years: 150 mg bid or 300 mg once daily

Axid Cap: 150, 300 mg; Oral soln: 15 mg/ml (480 ml) (bubble gum)

▶ ranitidine (B)(OTC)(G) <1 month: not recommended; 1 month-16 years: 2-4 mg/kg/day in 2 divided doses; max 300 mg/day; Duodenal/Gastric Ulcer: 2-4 mg/kg/day divided bid; max 300 mg/day; Erosive Esophagitis: 5-10 mg/kg/day divided bid; max 300 mg/day; 20 lb, 9 kg: 0.6 ml; 30 lb, 13.6 kg: 0.9 ml; 40 lb, 18.2 kg: 1.2 ml; 50 lb, 22.7 kg: 1.5 ml; 60 lb, 27.3 kg: 1.8 ml; 70 lb, 31.8 kg: 2.1 ml</p>

Zantac 150 mg bid or 300 mg q HS

Tab: 150, 300 mg

Zantac 75 1 tab ac

Tab: 75 mg

Zantac EFFERdose dissolve 25 mg tab in 5 ml water and dissolve 150 mg tab in 6-8 oz water

Efferdose: 25, 150 mg effervescent

Zantac Syrup Syr: 15 mg/ml (peppermint) (alcohol 7.5%)

Frantidine bismuth citrate (C) <12 years: not recommended; ≥12 years: 400 mg bid Tritec Tab: 400 mg

### PROTON PUMP INHIBITORS

dexlansoprazole (B)(G) <18 years: not recommended; ≥18 years: 30-60 mg daily for up to 4 weeks
</p>

**Dexilant** *Cap*: 30, 60 mg ent-coat del-rel granules; may open and sprinkle on applesauce; do not crush <u>or</u> chew granules

Dexilant SoluTab Tab: 30 mg del-rel orally-disint

esomeprazole (B)(OTC)(G) <1 month: not established; 1 month-<1 year, 3-5 kg: 2.5 mg; 5-7.5 kg: 5 mg; >7.5-12 kg: 10 mg; 1-11 years, <20 kg: 10 mg; ≥20 kg: 10-20 mg; 12-17 years: 20 mg; max 8 weeks; >17 years: 20-40 mg once daily; max 8 weeks; take 1 hour before food; swallow whole or mix granules with food or juice and take immediately; do not crush or chew granules

Nexium Cap: 20, 40 mg ent-coat del-rel pellets

Nexium for Oral Suspension *Oral susp*: 10, 20, 40 mg ent-coat del-rel granules/pkt; mix in 2 tbsp water and drink immediately; 30 pkt/carton

lansoprazole (B)(OTC)(G) <1 year: not recommended; ≥1 year: 15-30 mg daily for up to 8 weeks; may repeat course; take before eating

**Prevacid** *Cap*: 15, 30 mg ent-coat del-rel granules; swallow whole <u>or</u> mix granules with food <u>or</u> juice and take immediately; do not crush <u>or</u> chew granules; follow with water

Prevacid for Oral Suspension *Oral susp*: 15, 30 mg ent-coat del-rel granules/pkt; mix in 2 tbsp water and drink immediately; 30 pkt/carton (strawberry)

Prevacid SoluTab ODT: 15, 30 mg (strawberry) (phenylalanine)

Prevacid 24HR 15 mg ent-coat del-rel granules; swallow whole or mix granules with food or juice and take immediately; do not crush or chew granules; follow with water

> omeprazole (C)(OTC)(G) <1 year: not recommended; 5-<10 kg: 5 mg daily; 10-<20 kg: 10 mg daily; ≥20 kg: 20-40 mg daily for 14 days; may repeat course in 4 months; take before eating; swallow whole or mix granules with applesauce and take immediately; do not crush or chew granules; follow with water</p>

Prilosec Cap: 10, 20, 40 mg ent-coat del-rel granules Prilosec OTC Tab: 20 mg del-rel (regular, wild berry)

pantoprazole (B)(G) <12 years: not recommended; ≥12 years: 40 mg daily
 Tab: 40 mg ent-coat del-rel
</p>

### Protonix for Oral Suspension

Oral susp: 40 mg ent-coat del-rel granules/pkt; mix in 1 tsp apple juice for 5 seconds <u>or</u> sprinkle on 1 tsp applesauce, and swallow immediately; do not mix in water <u>or</u> any other liquid <u>or</u> food; take approximately 30 minutes prior to a meal; 30 pkt/carton

rabeprazole (B)(OTC)(G) <1 year: not recommended; 1-11 years, <15 kg: 5 mg once daily for up to 12 weeks; >11 years, ≥15 kg: 20 mg daily after breakfast; may open cap and sprinkle contents on a small amount of soft food or liquid

AcipHex *Tab*: 20 mg ent-coat del-rel AcipHex Sprinkle *Cap*: 5, 10 mg del-rel

#### PROTON PUMP INHIBITORS/SODIUM BICARBONATE COMBINATION

> omeprazole/na bicarbonate (B)(G) <18 years: not recommended; ≥18 years: 20 mg daily; do not crush or chew; max 8 weeks

Zegerid Cap: omep 20 mg/na bicarb 1100 mg; omep 40 mg/na bicarb 1100 mg Zegerid OTC (OTC) Cap: omep 20 mg/na bicarb 1100 mg

**Zegerid for Oral Suspension** *Pwdr for oral susp: omep* 20 mg/na bicarb 1680 mg; omep 40 mg/na bicarb 1680 mg (30 pkt/carton)

#### PROMOTILITY AGENT

metoclopramide (B)(G) <18 years: not recommended; ≥18 years: 10-15 mg qid 30 minutes ac and HS prn; up to 20 mg prior to provoking situation; max 12 weeks per therapeutic course
</p>

Metozolv ODT ODT: 5, 10 mg (mint) Reglan Tab: 5\*, 10 mg; Syr: 5 mg/5 ml

Reglan ODT ODT: 5, 10 mg (orange)

Comment: metoclopramide is contraindicated when stimulation of GI motility may be dangerous. Observe for tardive dyskinesia and Parkinsonism. Avoid concomitant drugs that may cause an extrapyramidal reaction (e.g., phenothiazines, *haloperidol*).

### GIARDIASIS (*GIARDIA LAMBLIA*)

metronidazole (not for use in 1st; B in 2nd, 3rd)(G) <12 years: 35-50 mg/kg/day in 3 divided doses x 10 days; ≥12 years: 250 mg tid x 5-10 days</p>

Flagyl Tab: 250\*, 500\*mg

Flagyl 375 Cap: 375 mg

Flagyl ER Tab: 750 mg ext-rel

**Comment**: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

► tinidazole (not for use in 1st; B in 2nd, 3rd) <3 years: not recommended; 3-12 years: 50 mg/kg once daily x 3-5 days; take with food; max 2 gm/day; >12 years: 2 gm once daily x 3-5 days; take with food

Tindamax Tab: 250\*, 500\*mg

*nitazoxanide* (B) <1 year: not recommended; 1-3 years; 100 mg q 12 hours x 3 days; >3-11 years: 200 mg q 12 hours x 3 days; ≥11 years: 500 mg q 12 hours x 3 days; take with food

Alinia Tab: 500 mg; Oral susp: 100 mg/5 ml (60 ml)

Comment: Alinia is an antiprotozoal for the treatment of diarrhea due to G. lamblia or C. parvum.

### GINGIVITIS/PERIODONTITIS

### **ANTI-INFECTIVE ORAL RINSES**

**Comment**: Oral treatments should be preceded by brushing and flossing the teeth. Avoid foods and liquids for 2-3 hours after a treatment.

chlorhexidine gluconate (B)(G) swish 15 ml undiluted for 30 seconds bid; do not swallow; do not rinse mouth after treatment.

Peridex, PerioGard Oral soln: 0.12% (480 ml)

### GLAUCOMA: OPEN ANGLE

Comment: Other ophthalmic medications should not be administered within 5-10 minutes of administering an ophthalmic antiglaucoma medication. Contact lenses should be removed prior to instillation of antiglaucoma medications and may be

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replaced 15 minutes later. Interactions with ophthalmic antiglaucoma agents include MAOIs, CNS depressants, beta-blockers, tricyclic antidepressants, and hypoglycemics.

#### OPHTHALMIC ALPHA2A-AGONISTS

Comment: Ophthalmic alpha<sub>2a</sub>-agonists are contraindicated with concomitant MAOI use. Cautious use with CNS depressants, beta-blockers (ocular and systemic), antihypertensives, cardiac glycosides, and tricyclic antidepressants.

p apraclonidine ophthalmic solution (C) <12 years: not recommended; ≥12 years: 1-2 drops affected eye tid</p>

**Iopidine** *Ophth soln*: 0.5% (5 ml) (benzalkonium chloride)

brimonidine tartrate ophthalmic solution (B) <2 years: not recommended; ≥2 years: 1 drop affected eye q 8 hours</p>

Alphagan P Ophth soln: 0.1, 0.15% (5, 10, 15 ml) (purite)

### OPHTHALMIC CARBONIC ANHYDRASE INHIBITORS

**Comment**: Ophthalmic carbonic anhydrase inhibitors are contraindicated in patients with sulfa allergy.

brinzolamide ophthalmic suspension (C) <12 years: not recommended; ≥12 years: 1 drop affected eye tid</p>

Azopt Ophth susp: 1% (2.5, 5, 10, 15 ml) (benzalkonium chloride)

→ dorzolamide ophthalmic solution (C)(G) <12 years: not recommended; ≥12 years: 1
drop affected eye tid
</p>

Trusopt Ophth soln: 2% (10 ml) (benzalkonium chloride)

# OPHTHALMIC ALPHA-2 ADRENERGIC RECEPTOR AGONIST/CARBONIC ANHYDRASE INHIBITOR

brimonidine/brinzolamide (C) <12 years: not recommended; ≥12 years: 1 drop affected eye tid</p>

Simbrinza Ophth soln: brim 1% mg/brinz 0.2% per ml (10 ml)

### **OPHTHALMIC CHOLINERGICS (MIOTICS)**

carbachol/hydroxypropyl methylcellulose ophthalmic solution (C) <12 years: not recommended; ≥12 years: 2 drops affected eye tid
</p>

Isopto Carbachol Ophth soln: carb 0.75% or 2.25%/hydroxy 1% (15 ml); carb 1.5% or 3%/hydroxy 1% (15, 30 ml) (benzalkonium chloride)

pilocarpine (C)(G) <12 years: not recommended; ≥12 years:</p>

Isopto Carpine 2 drops affected eye tid-qid

Ophth soln: 1, 2, 4% (15 ml) (benzalkonium chloride)

Ocusert Pilo change ophthalmic insert once weekly

Ophth inserts: 20 mcg/hr (8/pck)

Pilocar Ophthalmic Solution 1-2 drops affected eye 1-6 times/day Ophth soln: 0.5, 1, 2, 3, 4, 6, 8% (15 ml)

Pilopine HS apply 1/2 inch ribbon in lower conjunctival sac q HS *Ophth gel*: 4% (4 gm)

#### OPHTHALMIC CHOLINESTERASE INHIBITORS

demecarium bromide ophthalmic solution (X) <12 years: not recommended; ≥12 years: 1-2 drops affected eye q 12-48 hours
</p>

Humorsol Ocumeter Ophth soln: 0.125, 0.25% (5 ml)

► echothiophate iodide ophthalmic solution (C) <12 years: not recommended; ≥12 years: initially 1 drop of 0.03% affected eye bid; then increase strength as needed Phospholine Iodide Ophth soln: 0.03, 0.06, 0.125, 0.25% (5 ml)

### OPHTHALMIC CARDIOSELECTIVE BETA-BLOCKERS

Comment: Ophthalmic beta-blockers are generally contraindicated in severe COPD, history of or current bronchial asthma, sinus bradycardia, 2nd or 3rd degree AV block.

**betaxolol** ophthalmic solution (C)(G) <12 years; not recommended; ≥12 years: 1-2 drops affected eye bid

Betoptic Ophth soln: 0.5% (5, 10, 15 ml) (benzalkonium chloride) Betoptic S Ophth soln: 0.25% (2.5, 5, 10, 15 ml) (benzalkonium chloride)

### OPHTHALMIC BETA-BLOCKERS (NON-CARDIOSELECTIVE)

Comment: Ophthalmic beta-blockers are generally contraindicated in severe COPD, history of or current bronchial asthma, sinus bradycardia, 2nd or 3rd degree AV block

 $\triangleright$  carteolol ophthalmic solution (C)(G) <12 years: not recommended;  $\ge$ 12 years: 1 drop affected eve bid

Ocupress Ophth soln: 1% (5, 10, 15 ml) (benzalkonium chloride)

levobunolol ophthalmic solution (C) <12 years: not recommended; ≥12 years: 1-2 drops affected eve bid

Betagan Ophth soln: 0.5% (5, 10, 15 ml) (benzalkonium chloride)

 $\rightarrow$  metipranolol ophthalmic solution (C)(G) <12 years: not recommended;  $\geq$ 12 years: 1 drop affected eye bid

OptiPranolol Ophth soln: 0.3% (5, 10 ml) (benzalkonium chloride)

 $\triangleright$  timolol ophthalmic solution and gel (C)(G) <12 years; not recommended; ≥12 vears:

Betimol 1 drop affected eye bid

*Ophth soln*: 0.25, 0.5% (5, 10, 15 ml) (benzalkonium chloride)

**Istalol** 1 drop affected eye daily

Ophth soln: 0.5% (2.5, 5 ml) (preservative-free)

Timoptic 1 drop affected eye bid

*Ophth soln*: 0.25, 0.5% (5, 10, 15 ml) (benzalkonium chloride)

Timoptic Ocudose 1 drop bid

Ophth soln: 0.25, 0.5% (0.2 ml/dose, 60 dose) (preservative-free)

Timoptic-XE 1 drop affected eye bid

*Ophth gel*: 0.25, 0.5% (2.5, 5 ml) (preservative-free)

### OPHTHALMIC ALPHA2A-AGONIST/BETA-BLOCKER (NON-CARDIOSELECTIVE) COMBINATION

Comment: Generally contraindicated in severe COPD, history of or current bronchial asthma, sinus bradycardia, 2nd or 3rd degree AV block.

brimonidine tartrate/timolol ophthalmic solution (C): <2 years: not recommended; ≥2 years: 1 drop affected eye bid

Combigan Ophth soln: brimo 0.2%/timo 0.5% (5, 10, 15 ml) (benzalkonium chloride)

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### OPHTHALMIC PROSTAMIDE ANALOGS

bimatoprost ophthalmic solution (C)(G) <16 years: not recommended; ≥16 years: 1 drop q affected eye HS</p>

Lumigan Ophth soln: 0.01, 0.03% (2.5, 5, 7.5 ml) (benzalkonium chloride)

latanoprost ophthalmic solution (C) <12 years: not recommended; ≥12 years: 1
 drop affected eye q HS
</p>

**Xalatan** *Ophth soln*: 0.005% (2.5 ml) (benzalkonium chloride)

tafluprost ophthalmic solution (C) <12 years: not recommended; ≥12 years: 1 drop
 affected eye q HS
</p>

Zioptan Ophth soln: 0.0015% (0.3 ml single use, 30-60/carton) (preservative-free)

travoprost ophthalmic solution (C)(G) <16 years: not recommended; ≥16 years: 1
 drop affected eye q HS
</p>

Travatan Ophth soln: 0.004% (2.5, 5 ml) (benzalkonium chloride)
Travatan Z Ophth soln: 0.004% (2.5, 5 ml) (boric acid, propylene glycol, sorbitol, zinc chloride)

### OPHTHALMIC SYMPATHOMIMETICS

Comment: Contraindicated in narrow-angle glaucoma. Use with caution in cardiovascular disease, hypertension, hyperthyroidism, diabetes, and asthma.

dipivefrin ophthalmic solution (B) <12 years: not recommended; ≥12 years: 1 drop
 affected eye q 12 hours
</p>

**Propine** *Ophth soln*: 0.1% (5, 10, 15 ml) (benzalkonium chloride)

# OPHTHALMIC CARBONIC ANHYDRASE INHIBITOR/NON-CARDIOSELECTIVE OPHTHALMIC CARBONIC ANHYDRASE INHIBITOR/BETA-BLOCKER

dorzolamide/timolol ophthalmic solution (C) <12 years: not recommended; ≥12 years: 1 drop affected eye bid
</p>

Cosopt Ophth soln: dorz 2%/tim 0.5% (10 ml) (benzalkonium chloride) Cosopt PF Ophth soln: dorz 2%/tim 0.5% (10 ml) (preservative-free)

#### OPHTHALMIC SYNTHETIC DOCOSANOID

> unoprostone isopropyl ophthalmic solution (C) <12 years: not recommended; ≥12 years: 1 drop affected eye bid</p>

Rescula Ophth soln: 0.15% (5 ml) (benzalkonium chloride)

### ORAL CARBONIC ANHYDRASE INHIBITORS

acetazolamide (C) <12 years: not recommended; ≥12 years: 250-1000 mg/day in divided doses or 500 mg bid sust-rel tabs; max 1 gm/day</p>

Diamox Tab: 125\*, 250\*mg

Diamox Sequels Tab: 500 mg sust-rel

methazolamide (C)(G) <12 years: not recommended; ≥12 years: 50-100 mg bid-tid times daily</p>

Neptazane Tab: 25, 50 mg

Comment: Administer ophthalmic osmotic and miotic agents concomitantly.

### GONORRHEA (NEISSERIA GONORRHOEAE)

Comment: The following treatment regimens for *N. gonorrhoeae* are published in the 2015 CDC Transmitted Diseases Treatment Guidelines. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms. Empiric treatment requires concomitant treatment of chlamydia. Treat all sexual contacts. Patients who are HIV-positive should receive the same treatment as those who are HIV-negative. Sexual abuse must be considered a cause of gonococcal infection in preadolescent children.

# RECOMMENDED REGIMENS: ≥12 YEARS; UNCOMPLICATED INFECTIONS OF THE CERVIX, URETHRA, AND RECTUM

### Regimen 1

- ceftriaxone 250 mg IM in a single dose plus
- *azithromycin* 1 gm in a single dose

### Regimen 2

- ceftriaxone 250 mg IM in a single dose plus
- *doxycycline* 100 mg bid x 7 days

# RECOMMENDED REGIMENS: ≥12 YEARS; UNCOMPLICATED INFECTIONS OF THE PHARYNX

### Regimen 1

- ceftriaxone 250 mg IM in a single dose plus
- *azithromycin* 1 gm in a single dose

### Regimen 2

- ceftriaxone 250 mg IM in a single dose plus
- ► doxycycline 100 mg bid x 7 days

### RECOMMENDED REGIMENS: CHILDREN ≥45 KG, ≥8 YEARS; UNCOMPLICATED INFECTIONS OF THE CERVIX, URETHRA, AND RECTUM

### Regimen 1

- ceftriaxone 250 mg IM in a single dose plus
- azithromycin 1 gm in a single dose

### RECOMMENDED REGIMEN: CHILDREN ≥45 KG

### Regimen 1

ceftriaxone 250 mg IM in a single dose

# RECOMMENDED REGIMEN: CHILDREN >45 KG WHO HAVE GONOCOCCAL BACTEREMIA OR GONOCOCCAL ARTHRITIS

### Regimen 1

ceftriaxone 50 mg/kg IM or IV in a single dose daily x 7 days

RECOMMENDED REGIMENS: CHILDREN <45 KG, <8 YEARS; UNCOMPLICATED GONOCOCCAL VULVOVAGINITIS, CERVICITIS, URETHRITIS, PHARYNGITIS, OR PROCTITIS

### Regimen 1

ceftriaxone 250 mg IM in a single dose

# RECOMMENDED REGIMEN: CHILDREN <45 KG, <8 YEARS WHO HAVE GONOCOCCAL BACTEREMIA OR ARTHRITIS

### Regimen 1

ceftriaxone 50 mg/kg (max dose 1 gm) IM or IV in a single dose daily x 7 days

#### DRUG BRANDS AND DOSE FORMS

*▶* azithromycin (B)

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

ceftriaxone (B)(G)

Rocephin Vial: 250, 500 mg; 1, 2 g

*doxycycline* (D)(G) <8 years: not recommended

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Dorvx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

### **ALTERNATIVE THERAPY**

*azithromycin* (B) <12 years: not recommended; ≥12 years: 2 gm x 1 dose

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak *Tab*: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

cefotaxime 500 mg IM x 1 dose

Claforan Vial: 500 mg; 1, 2 g

*cefotetan* <12 years: not recommended; ≥12 years: 1 gm IM x 1 dose

Cefotan Vial: 1, 2 g

cefoxitin (B) <3 months: not recommended; ≥3 months: 2 gm IM x 1 dose
 Mefoxin Vial: 1, 2 g
 plus
</p>

probenecid (B)(G)

Benemid <2 years: not recommended; 2-14 years: 25 mg/kg 30 minutes before *cefoxitin*; >14 years: 1 gm 30 minutes before *cefoxitin*Tab: 500\*mg; Cap: 500 mg

- cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose); ≥12 years: 200 mg x 1 dose</p>
- ► ceftizoxime (B) <6 months: not recommended; ≥6 months: 1 gm IM x 1 dose Ceftizox Vial: 500 mg; 1, 2, 10 g
- cefuroxime axetil (B)(G) <12 years: 30 mg/kg/day x 1 dose; ≥12 years: 1000 mg x 1 dose
  </p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

demeclocycline (X) <8 years: not recommended; ≥8 years: initially 600 mg, followed
 by 300 mg q 12 hours x 4 days (total 3 gm)
</p>

Declomycin Tab: 300 mg

**Comment:** *demeclocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.

- enoxacin (C) <18 years: not recommended; ≥18 years: 400 mg x 1 dose Penetrex Tab: 200, 400 mg
- imipramine (C) <18 years: not recommended; ≥18 years: 400 mg x 1 dose Maxaquin Tab: 400 mg
- > norfloxacin (C) <18 years: not recommended; ≥18 years: 800 mg x 1 dose Noroxin Tab: 400 mg
- Spectinomycin (B) <12 years: 40 mg/kg IM x 1 dose; ≥12 years: 2 gm IM x 1 dose
   Trobicin Vial: 2 g
  </p>

### GOUT

Pseudogout see Pseudogout page 352 Acetaminophen for IV Infusion see page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see page 298 Topical/Transdermal NSAIDs see page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498

#### PEGYLATED URIC ACID SPECIFIC ENZYME

pegloticase (C) <18 years: not recommended; ≥18 years: premedicate with antihistamine and corticosteroid; 8 mg once every 2 weeks; after dilution, administer IV infusion over at least 2 hours; observe at least 1 hour post-infusion</p>

Krystexxa Vial: 8 mg/ml (1 ml) single-use pwdr for IV infusion after dilution

Comment: Slow rate, or stop and restart at lower rate, if infusion reaction occurs (e.g., Krystexxa is contraindicated with G6PD deficiency; screen patients of African or Mediterranean descent). Krystexxa is not for the treatment of asymptomatic hyperuricemia.

### **PROPHYLAXIS**

allopurinol (C)(G) <12 years: not recommended; ≥12 years: initially 100 mg daily; increase by 100 mg weekly; max 800 mg/day and 300 mg/dose; usual range for mild symptoms 200-300 mg/day; for severe symptoms 400-600 mg/day; take with food</p>

Zyloprim Tab: 100\*, 300\*mg

Comment: Do not take concurrent with colchicine.

colchicine (C)(G) <12 years: not recommended; ≥12 years: 0.6-1.2 mg at first sign of attack; then 0.6 mg every hour or 1.2 mg every 2 hours until pain relief; then consider 0.6 mg/day or every other day for maintenance</p>

Colcrys Tab: 0.6 mg Mitigare Cap: 0.6 mg

Comment: Do not take concurrently with *allopurinol*.

be febuxostat (C) <18 years: not recommended; ≥18 years: initially 40 mg daily; after 2 weeks, may increase to 80 mg daily.
</p>

Uloric Tab: 40, 80 mg

**Comment:** Gout flare prophylaxis with *colchicine* or NSAID is recommended on initiation of *febuxostat* and up to 6 months.

#### URICOSURIC AGENT

probenecid (C)(G) <12 years: not recommended; ≥12 years: 250 mg bid x 1 week; maintenance 500 mg bid

*Tab*: 500\*mg; *Cap*: 500 mg

Comment: Avoid concomitant use of probenecid and salicylates.

### URICOSURIC/ANTI-INFLAMMATORY COMBINATIONS

probenecid/colchicine (NE)(G) <12 years: not recommended; ≥12 years: 1 tab once daily x 1 week; then, 1 tab bid thereafter

Tab: prob 500 mg/colch 0.5 mg

Comment: *probenecid/colchicine* is contraindicated in the treatment of acute gout attack, patients with blood dyscrasias, and patients with uric acid kidney stones. Concomitant salicylates antagonize the uricosuric effects.

sulfinpyrazone (C) <12 years: not recommended; ≥12 years: initially 200-400 mg
 bid; may gradually increase to 800 mg bid
</p>

Anturane Cap: 100, 200 mg

Comment: Goal is serum uric acid < 6.5 mg/dL.

#### XANTHINE OXIDASE INHIBITOR

febuxostat (C) <18 years: not established; ≥18 years: 40 mg once daily x 2 weeks; if serum uric acid is not <6 mg/dL, may increase to 80 mg once daily
</p>

Uloric Tab: 40, 80 mg

### SELECTIVE URIC ACID REABSORPTION INHIBITOR (SURI)

▶ lesinurad (C) <18 years: not established; ≥18 years: 200 mg once daily in combination with a xanthine oxidase inhibitor (XOI)</p>

Zurampic Tab: 200 mg

Comment: Zurampic inhibits URATI, a urate transporter, which is responsible for the majority of renal absorption of uric acid and (OAT)4, organic anion transporter, a uric acid transporter involved in diuretic-induced hyperuricemia. Do not use as monotherapy. Use in combination with an XOI, such as allopurinol or febuxostat, (to reduce the production of uric acid). Do not initiate if CrCl <45 mL/min, ESRD, dialysis, or kidney transplant.



### **GOUTY ARTHRITIS**

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488

### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0,075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

**Comment**: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

capsaicin provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks.

### **ORAL SALICYLATE**

indomethacin (C) <14 years: usually not recommended; ≥2 years, if risk warranted: 1-2 mg/kg/day in divided doses; max 3-4 mg/kg/day (or 150-200 mg/day, whichever is less); <14 years: ER cap not recommended; >14 years: initially 25 mg bid-tid; increase as needed at weekly intervals by 25-50 mg/day; max 200 mg/day

Cap: 25, 50 mg; Susp: 25 mg/5 ml (pineapple-coconut, mint) (alcohol 1%); Supp: 50 mg; ER Cap: 75 mg ext-rel

Comment: *indomethacin* is indicated only for acute painful flares. Administer with food <u>and/or</u> antacids. Use lowest effective dose for shortest duration.

### NSAID PLUS PPI

esomeprazole/naproxen (C; not for use in 3rd)(G) <18 years: not recommended;
 ≥18 years: 1 tab bid; use lowest effective dose for the shortest duration; swallow
 whole; take at least 30 minutes before a meal
</p>

Vimovo *Tab: nap* 375 mg/eso 20 mg ext-rel; *nap* 500 mg/eso 20 mg ext-rel Comment: Vimovo is indicated to improve signs/symptoms, and risk of gastric ulcer in patients at risk of developing NSAID-associated gastric ulcer.

### COX-2 INHIBITORS

Comment: Cox-2 inhibitors are contraindicated with history of asthma, urticaria, and allergic-type reactions to *aspirin*, other NSAIDs, and sulfonamides, 3rd trimester of pregnancy, and coronary artery bypass graft (CABG) surgery.

celecoxib (C)(G) <18 years: not recommended; ≥18 years: 100-400 mg bid; max 800 mg/day</p>

Celebrex Cap: 50, 100, 200, 400 mg

► meloxicam (C)(G)

Mobic <2 years, <60 kg: not recommended; ≥2, >60 kg: 0.125 mg/kg; max 7.5 mg once daily; ≥18 years: initially 7.5 mg once daily; max 15 mg once daily; Hemodialysis: max 7.5 mg/day

*Tab*: 7.5, 15 mg; *Oral susp*: 7.5 mg/5 ml (100 ml) (raspberry)

**Vivlodex** <18 years: not established;  $\ge$ 18 years: initially 5 mg qd; may increase to max 10 mg/day; *Hemodialysis*: max 5 mg/day

Cap: 5, 10 mg



### **GRANULOMA INGUINALE (DONOVANOSIS)**

Comment: The following treatment regimens are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treatment regimens are for patients ≥18 years only; consult a specialist for treatment of patients less than 18 years-of-age. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms. Persons who have sexual contact with a patient who has had granuloma inguinale within the past 60 days before onset of the patient's symptoms should be examined and offered therapy. Patients who are HIV-positive should receive the same treatment as those who are HIV-negative; however, the addition of a parenteral aminoglycoside (e.g., gentamicin) can also be considered.

### RECOMMENDED REGIMEN

doxycycline 100 mg bid x at least 3 weeks and until all lesions have completely healed

#### ALTERNATE REGIMENS

- azithromycin (B)(G)1 gm once weekly for at least 3 weeks and until all lesions have completely healed
- ciprofloxacin (C) 750 mg bid x at least 3 weeks and until all lesions have completely healed; max 1.5 gm/day

- erythromycin base 500 mg qid x 14 days or erythromycin ethylsuccinate 400 mg qid x 14 days
- ► trimethoprim/sulfamethoxazole 1 double-strength (160/800) dose bid x at least 3 weeks and until all lesions have completely healed

#### DRUG BRANDS AND DOSE FORMS

*⇒* azithromycin (B)(G)

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

ciprofloxacin (C)

**Čipro (G)** *Tab*: 250, 500, 750 mg; *Oral susp*: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy, and lactation. Risk of tendonitis <u>or</u> tendon rupture.

doxycycline (D)(G) <8 years: not recommended; ≥8 years, <100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, ≥100 lb: 40-100 mg bid; see page 561 for dose by weight table
</p>

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin *Tab*: 100 mg; *Cap*: 50, 100 mg; *Syr*: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry) Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photo-

sensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

> erythromycin base (B)(G)

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

> erythromycin ethylsuccinate (B)(G)

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

► trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

### **GROWTH FAILURE**

**Comment**: Administer growth hormones by SC injection into thigh, buttocks, or abdomen. Rotate sites with each dose. Contraindicated in children with fused epiphyses or evidence of neoplasia.

*mecasermin* (recombinant human insulin-like growth factor-1 [rhIGF-1])

Increlex (B) see mfr pkg insert

Vial: 10 mg/ml (benzyl alcohol)

**Comment:** Increlex is indicated for growth failure in children with severe primary IGF-1 deficiency (primary IGFD) <u>or</u> in those with growth hormone (GH) gene deletion who have developed neutralizing antibodies to GH.

> somatropin (rDNA origin)

Genotropin (B) <12 years: usually 0.16-0.024 mg/kg/week divided into 6-7 doses; ≥12 years: initially not more than 0.04 mg/kg/week divided into 6-7 doses; may increase at 4-8 week intervals; max 0.08 mg/kg/week divided into 6-7 doses

Intra-Mix Device: 1.5 mg (1.3 mg/ml after reconstitution), 5.8 mg (5 mg/ml after reconstitution) (two-chamber cartridge w. diluent); Pen or Intra-Mix Device: 5.8 mg (5 mg/ml after reconstitution), 13.8 mg (512 mg/ml after reconstitution) (two-chamber cartridge w. diluent)

Genotropin Miniquick (B) <12 years: usually 0.16-0.024 mg/kg/week divided into 6-7 doses; ≥12 years: initially not more than 0.04 mg/kg/week divided into 6-7 doses; may increase at 4-8-week intervals; max 0.08 mg/kg/week divided into 6-7 doses

MiniQuick: 0.2, 0.4, 0.6, 0.8, 1, 1.2, 1.4, 1.6, 1.8, 2 mg/0.25 ml (pwdr for SC injection after reconstitution) (two-chamber cartridge w. diluent)

Humatrope (C) <12 years: initially 0.18 mg/kg/week IM or SC divided into equal doses give neither on 3 alternate days or 6 x/week; max 0.3 mg/kg/week Vial: 5 mg w. 5 ml diluent</p>

Norditropin (C) <12 years: 0.024-0.034 mg/kg 6-7 x/week SC

 $\it Vial: 4~mg$  (12 IU), 8 mg (24 IU);  $\it Cartridge~for~inj: 5, 10, 15~mg/1.5~ml; \it Flex-Pro~prefilled~pen: 5, 10, 15~mg/1.5~ml; <math display="inline">\it NordiFlex~prefilled~pen: 5, 10, 15~mg/1.5~ml; 30~mg/3~ml$ 

Nutropin  $(\tilde{C})$  <12 years: 0.7 mg/kg/week SC in divided daily doses *Vial*: 5, 10 mg/vial w. diluent

Nutropin AQ ( $\check{C}$ ) <12 years: *Prepubertal*: up to 0.043 mg/kg SC daily; *Pubertal*: up to 0.1 mg/kg SC daily; *Turner Syndrome*: up to 0.0375 mg/kg/week divided into equal doses 3-7 x/week;  $\geq$ 12 years: initially not more than 0.006 mg/kg SC daily; may increase to max 0.025 mg/kg SC daily

Vial: 5 mg/ml (2 ml)

Nutropin Depot (C) 1.5 mg/kg SC monthly on same day each month; max 22.5 mg/inj; divide injection if >22.5 mg

Vial: 13.5, 18, 22.5 mg/vial (pwdr for injection after reconstitution; single use w. diluent and needle)

Omnitrope (B) 0.16-0.24 mg/kg/week SC divided 3-7 x/week Vial: 5.8 mg

Omnitrope Pen 5 (B) 0.16-0.24 mg/kg/week SC divided 3-7 x/week Cartridge for inj: 5 mg/1.5 ml

Omnitrope Pen 10 (B) 0.16-0.24 mg/kg/week SC divided 3-7 x/week Cartridge for ini: 10 mg/1.5 ml

Saizen (B)(G) 0.18 mg/kg/week IM or SC divided 3-7 times/week *Vial*: 5 mg (pwdr for SC injection w. diluent)

Serostim (B) 0.1 mg/kg SC once daily at HS; max 6 mg Vial: 5, 4, 6, 8.8 mg (pwdr for SC injection w. diluent) (benzyl alcohol)

# HEADACHE: MIGRAINE/CLUSTER

#### **FRGOTAMINE AGENTS**

**Comment**: Do not use an ergotamine-type drug within 24 hours of any triptan <u>or</u> other 5-HT agonist.

dihydroergotamine mesylate (X) <12 years: not recommended; ≥12 years: DHE 45
 1 mg SC, IM, or IV; may repeat at 1 hour intervals; max 3 mg/day SC or IM/day;
 max 2 mg IV/day; max 6 mg/week
</p>

Amp: 1 mg/ml (1 ml)

Migranal 1 spray in each nostril; may repeat 15 minutes later; max 6 sprays/day and 8 sprays/week

Nasal spray: 4 mg/ml; 0.5 mg/spray (caffeine)

ergotamine (X)(G) <12 years: not recommended; ≥12 years: 1 tab SL at onset of attack; then q 30 minutes as needed; max 3 tabs/day and 5 tabs/week</p>
Tab: 2 mg

 $\triangleright$  ergotamine/caffeine (X)(G) <12 years: not recommended; ≥12 years:

Cafergot 2 tabs at onset of attack; then 1 tab every 1/2 hour if needed; max 6 tabs/attack and 10 tabs/week

Tab: ergot 1 mg/caf 100 mg

Cafergot Suppository 1 suppository rectally at onset of headache; may repeat x 1 after 1 hour; max 2/attack, 5/week

Rectal supp: ergot 2 mg/caf 100 mg

### 5-HT RECEPTOR AGONISTS

Comment: Contraindications to 5-HT receptor agonists include cardiovascular disease, ischemic heart disease, cerebral vascular syndromes, peripheral vascular disease, uncontrolled hypertension, hemiplegic or basilar migraine. Do not use any triptan within 24 hours of ergot-type drugs or other 5-HT1A agonists, or within 2 weeks of taking an MAOI.

almotriptan (C)(G) <12 years: not recommended; ≥12 years: 6.25 or 12.5 mg; may repeat once after 2 hours; max 2 doses/day
</p>

**Axert** *Tab*: 6.25 mg (6/card), 12.5 mg (12/card)

Comment: *almotriptan* is indicated for patients 12-17 years-of-age with PMHx migraine headache lasting ≥4 hours untreated.

▶ eletriptan (C) <18 years: not recommended; ≥18 years: 20 or 40 mg; may repeat once after 2 hours; max 80 mg/day

Relpax Tab: 20, 40 mg

frovatriptan (C)(G) <18 years: not recommended; ≥18 years: 2.5 mg with fluids; may repeat once after 2 hours; max 7.5 mg/day
</p>

Frova Tab: 2.5 mg

maratriptan (C) <18 years: not recommended; ≥18 years: 1 or 2.5 mg with fluids; may repeat once after 4 hours; max 5 mg/day
</p>

Amerge Tab: 1, 2.5 mg

rizatriptan (C) <18 years: not recommended; ≥18 years: initially 5 or 10 mg; may repeat in 2 hours if needed; max 30 mg/day
</p>

Maxalt Tab: 5, 10 mg

Maxalt-MLT *ODT*: 5, 10 mg (peppermint) (phenylalanine)

 $\triangleright$  sumatriptan (C)(G) <18 years: not recommended; ≥18 years:

Alsuma 6 mg SC to the upper arm <u>or</u> lateral thigh only; may repeat after 1 hour if needed; max 2 doses/day

Prefilled syringe: 6 mg/0.5 ml (2/pck with autoinjector)

Imitrex Injectable 4-6 mg SC; may repeat after 1 hour if needed; max 2 doses/day Prefilled syringe: 4, 6 mg/0.5 ml (2/pck with or without autoinjector)

Imitrex Nasal Spray (G) 5-20 mg intranasally; may repeat once after 2 hours if needed; max 40 mg/day

Nasal spray: 5, 20 mg/spray (single dose)

Imitrex Tab 25-200 mg x 1 dose; may be repeated at intervals of at least 2 hours if needed; max 200 mg/day

Tab: 25, 50, 100 mg rapid-rel

Imitrex STATdose Pen 6 mg/0.5 mg SC; may repeat once after 2 hours if needed; max 2 doses/day

Prefilled needle-free autoinjector delivery system: 6 mg/0.5 ml (6/pck)

Onzetra Xsail each disposable white nosepiece contains half a dose of medication (11 mg of sumatriptan); a full dose is 22 mg; do not use more than 2 nosepieces per dose; attach the mouthpiece and one nasal piece; then press the white button on the delivery device to pierce the capsule in the nasal piece, then insert the nasal piece into one nostril and blow into the mouth piece to deliver the nasal powder in the contents of one capsule (11 mg); repeat in the opposite nostril for a total single 22 mg dose

Cap: 11 mg nasal pwdr; Kit: nosepieces (2), capsules (2), reusable breath powered delivery device (1)

Sumavel DosePro 6 mg SC to the upper arm or lateral thigh only; may repeat after 1 hour if needed; max 2 doses/day

Prefilled needle-free delivery system: 6 mg/0.5 ml (6/pck)

Zembrace SymTouch administer 3 mg SC at onset of headache; may repeat hourly; max 12 mg/24 hours

Autoinjector: 3 mg/0.5 ml (prefilled single-dose disposable autoinjector)

zolmitriptan (C)(G) <18 years: not recommended; ≥18 years: initially 2.5 mg; may repeat after 2 hours if needed; max 10 mg/day
</p>

**Zomig** *Tab*: 2.5\*, 5 mg

Zomig Nasal Spray Nasal spray: 5 mg/spray (6 single dose/carton)

Zomig-ZMT ODT: 2.5 mg (6 tabs), 5\*mg (3 tabs) (orange) (phenylalanine)

#### 5-HT IB/ID RECEPTOR AGONIST/NSAID COMBINATION

► sumatriptan/naproxen (C; D in 3rd) <18 years: not recommended; ≥18 years: Treximet initially 1 tab; may repeat after 2 hours; max 2 doses/day

*Tab: suma* 85 mg/*naprox* 500 mg (9/blister card)

**Comment:** Do not use *sumatriptan* within 24 hours of ergot-type drugs <u>or</u> other 5-HT agonists, or within 2 weeks of taking an MAOI.

### OTHER ANALGESICS

acetaminophen/aspirin/caffeine (D)(G)

Comment: *aspirin*-containing medications are contraindicated with history of allergic-type reaction to *aspirin*, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

Excedrin Migraine (OTC) <12 years: not recommended; ≥12 years: 2 tabs q 6 hours prn; max 8 tabs/day x 2 days

*Tab: acet 250 mg/asp 250 mg/caf 65 mg* 

diclofenac potassium powder for oral solution (C; D ≥30 weeks)(G) <18 years: not established; ≥18 years: empty the contents of one pkt into a cup containing 1-2 oz or 2-4 tbsp (30-60 ml) of water, mix well, and drink immediately; water only, no other liquids; take on an empty stomach; use the lowest effective dose for the shortest duration of time; safety and effectiveness of a 2nd dose has not been established
</p>

Cambia Pwdr for oral soln: 50 mg/pkt (3 pkts/set, conjoined with a perforated border

Comment: Cambia is not indicated for migraine prophylaxis. May not be bioequivalent with other *diclofenac* forms (e.g., *diclofenac sodium* ent-coat tabs, *diclofenac sodium* ext-rel tabs, *diclofenac potassium* immed-rel tabs) even of the mg strength is the same, therefore, it s not possible to convert dosing from any other diclofenac formulation to Cambia. Cambia is contraindicated in the setting of coronary artery bypass graft. Use of Cambia should not be considered with hepatic impairment, gastric/duodenal ulcer, starting at 30 weeks gestation (risk of premature closure of the ductus arteriosus in the fetus), concomitant NSAIDs, SSRIs, anticoagulants/antiplatelets, any risk factor for potential bleeding.

isometheptene mucate/dichloralphenazone/acetaminophen (C)(IV)

Midrin <12 years: not recommended;  $\geq$ 12 years: 2 caps initially; then 1 cap q 1 hour until relieved; max 5 caps/12 hours

Cap: iso 65 mg/dichlor 100 mg/acet 325 mg

#### **PROPHYLAXIS**

topiramate (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg daily in
 the PM and titrate up daily as tolerated; then 25 mg bid; then, 25 mg in the AM and
 50 mg in the PM; then, 50 mg bid
</p>

**Topamax** *Tab*: 25, 50, 100, 200 mg **Topamax Sprinkle Caps** *Cap*: 15, 25 mg **Trokendi XR** *Cap*: 25, 50, 100, 200 mg ext-rel **Quedexy XR** *Cap*: 25, 50, 100, 150, 200 mg ext-rel

### **BETA-BLOCKERS**

atenolol (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg bid; max 150 mg/day in divided doses

**Tenormin** *Tab*: 25, 50, 100 mg

metoprolol succinate (C)(G) <12 years: not recommended; ≥12 years: initially
 12.5-25 mg in a single dose daily; increase weekly if needed; reduce if symptomatic
 bradycardia occurs; max 400 mg/day
</p>

Toprol-XL Tab: 25\*, 50\*, 100\*, 200\*mg ext-rel

metoprolol tartrate (C)(G) <12 years: not recommended; ≥12 years: initially 25-50 mg bid; increase weekly if needed; max 400 mg/day
</p>

Lopressor Tab: 25, 37.5, 50, 75, 100 mg

nadolol (C)(G) <12 years: not recommended; ≥12 years: initially 20 mg daily; max
 240 mg/day in divided doses
</p>

Corgard Tab: 20\*, 40\*, 80\*, 120\*, 160\*mg

▶ propranolol (C)(G)

Inderal <12 years: not recommended; ≥12 years: initially 10 mg bid; usual range 160-320 mg/day in divided doses

Tab: 10\*, 20\*, 40\*, 60\*, 80\*mg

Inderal LA <12 years: not recommended; ≥12 years: initially 80 mg daily in a single dose; increase q 3-7 days; usual range 120-160 mg/day; max 320 mg/day in a single dose

Cap: 60, 80, 120, 160 mg sust-rel

InnoPran XL <12 years: not recommended; ≥12 years: initially 80 mg q HS; max 120 mg/day

Cap: 80, 120 mg ext-rel

timolol (C)(G) <12 years: not recommended; ≥12 years: initially 10 mg bid; increase weekly if needed; usual maintenance 20-40 mg/day; max 60 mg/day in 2 divided doses
</p>

Blocadren Tab: 5, 10\*, 20\*mg

#### CALCIUM ANTAGONISTS

*diltiazem* (C)(G) <12 years: not recommended; ≥12 years:

Cardizem initially 30 mg qid; may increase gradually every 1-2 days; max 360 mg/day in divided doses

Tab: 30, 60, 90, 120 mg

Cardizem CD initially 120-180 mg once daily; adjust at 1- to 2-week intervals; max 480 mg/day

Cap: 120, 180, 240, 300, 360 mg ext-rel

 ${\bf Cardizem\ LA}$  initially 180-240 mg once daily; titrate at 2-week intervals; max 540 mg/day

*Tab*: 120, 180, 240, 300, 360, 420 mg ext-rel

Cardizem SR initially 60-120 mg bid; adjust at 2-week intervals; max 360 mg/day

Cap: 60, 90, 120 mg sust-rel

 $\triangleright$  *nifedipine* (C)(G) <12 years: not recommended; ≥12 years:

Adalat initially 10 mg tid; usual range 10-20 mg tid; max 180 mg/day

Cap: 10, 20 mg

Procardia initially 10 mg tid; titrate over 7-14 days: max 30 mg/dose and 180 mg/day in divided doses

Cap: 10, 20 mg

Procardia XL initially 30-60 mg daily; titrate over 7-14 days; max 90 mg/day in divided doses

 $\triangleright$  *verapamil* (C)(G) <12 years: not recommended; ≥12 years:

Calan 80-120 mg tid; increase daily or weekly if needed

*Tab*: 40, 80\*, 120\*mg

Covera HS initially 180 mg q HS; titrate in steps to 240 mg; then to 360 mg; then to 480 mg if needed

Tab: 180, 240 mg ext-rel

Isoptin initially 80-120 mg tid

Tab: 40, 80, 120 mg

**Isoptin SR** initially 120-180 mg in the AM; may increase to 240 mg in the AM; then, 180 mg q 12 hours or 240 mg in the AM and 120 mg in the PM; then, 240 mg q 12 hours

*Tab*: 120, 180\*, 240\*mg sust-rel

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

**Comment**: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab: 10, 25, 50, 75, 100, 150 mg
- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid;
   after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if
   total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as
   a single bedtime dose (max 300 mg q HS)
  </p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

Anafranil Cap: 25, 50, 75 mg

desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day
</p>

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

*imipramine* (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg

Cap: 75, 100, 125, 150 mg

nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid-qid; max 150 mg/day</p>

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
</p>

Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg

#### SSRI ANTIDEPRESSANTS

Comment: Co-administration of SSRIs with TCAs requires extreme caution. Concomitant use of MAOIs and SSRIs is absolutely contraindicated. Avoid other

serotonergic drugs. A potentially fatal adverse event is serotonin syndrome, caused by serotonin excess. Milder symptoms require HCP intervention to avert severe symptoms that can be rapidly fatal without urgent/emergent medical care. Symptoms include restlessness, agitation, confusion, hallucinations, tachycardia, hypertension, dilated pupils, muscle twitching, muscle rigidity, loss of muscle coordination, diaphoresis, diarrhea, headache, shivering, piloerection, hyperpyrexia, cardiac arrhythmias, seizures, loss of consciousness, coma, death. Abrupt withdrawal or interruption of treatment with an antidepressant medication is sometimes associated with an antidepressant discontinuation syndrome, which may be mediated by gradually tapering the drug over a period of two weeks or longer, depending on the dose strength and length of treatment. Common symptoms of the serotonin discontinuation syndrome include flu-like symptoms (nausea, vomiting, diarrhea, headaches, sweating), sleep disturbances (insomnia, nightmares, constant sleepiness), mood disturbances (dysphoria, anxiety, agitation), cognitive disturbances (mental confusion, hyperarousal), sensory and movement disturbances (imbalance, tremors, vertigo, dizziness, electric-shock-like sensations in the brain, often described by sufferers as "brain zaps").

▶ fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10-20 mg/day; start lower weight children at 10 mg/day; if starting at 10 mg daily, may increase after 1 week to 20 mg once daily; ≥17 years: initially 20 mg daily; may increase after 1 week; doses >20 mg/day may be divided into AM and noon doses; max 80 mg/day Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint) Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxetine therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after the last 20 mg fluoxetine dose; 1 90 mg cap once weekly on the same day Cap: 90 mg ent-coat del-rel pellets

### OTHER AGENTS

divalproex sodium (D) <10 years: not recommended; ≥10 years: Delayed-release: initially 250 mg bid; titrate weekly to usual max 500 mg bid; Extended-release: initially 500 mg once daily; may increase after one week to 1 gm once daily
</p>

**Depakene** *Cap*: 250 mg del-rel; syr: 250 mg/5 ml (16 oz)

Depakote Tab: 125, 250, 500 mg del-rel

Depakote ER Tab: 250, 500 mg ext-rel

Depakote Sprinkle Cap: 125 mg del-rel

methysergide (C) <12 years: not recommended; ≥12 years: 4-8 mg daily in divided doses with food; max 8 mg/day; max 6 month treatment course; wean off over last 2-3 weeks of treatment course; separate treatment courses by 3-4 week drug-free intervals Sansert Tab: 2 mg</p>

#### MAGNESIUM SUPPLEMENTS

magnesium (B) monitor serum magnesium level

Slow-Mag <12 years: not recommended; ≥12 years: 2 tabs daily *Tab*: 64 mg (as chloride)/110 mg (as carbonate)

magnesium oxide (B) monitor serum magnesium level

Mag-Ox 400 <12 years: not recommended; ≥12 years: 1-2 tabs daily *Tab*: 400 mg



# HEADACHE: TENSION (MUSCLE CONTRACTION HEADACHE)

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab:
   10, 25, 50, 75, 100, 150 mg
  </p>
- > amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)</p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

Anafranil Cap: 25, 50, 75 mg

desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

Description (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day

 day
</p>

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

 $\triangleright$  *imipramine* (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

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Tab: 10, 25, 50 mg

**Tofranil PM** initially 75 mg daily 1 hour before HS; max 200 mg *Cap*: 75, 100, 125, 150 mg

nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tidqid; max 150 mg/day

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
</p>

Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg

#### **ANALGESICS**

**butalbital/acetaminophen** (C)(G) <12 years: not recommended; ≥12 years:

Phrenilin 1-2 tabs q 4 hours prn; max 6 tabs/day

Tab: but 50 mg/acet 325 mg

Phrenilin Forte 1 tab or cap q 4 hours prn; max 6 caps/day

Cap/Tab: but 50 mg/acet 650 mg

butalbital/acetaminophen/caffeine (C)(G) <12 years: not recommended; ≥12 years:

Fioricet 1-2 tabs q 4 hours prn; max 6/day

Tab: but 50 mg/acet 325 mg/caf 40 mg

Zebutal 1 cap q 4 hours prn; max 5/day

Cap: but 50 mg/acet 500 mg/caf 40 mg

butalbital/acetaminophen/codeine/caffeine (C)(III)(G) <18 years: not recommended; ≥18 years:</p>

Fioricet with Codeine 1-2 tabs at onset q 4 hours prn; max 6 tabs/day Tab: but 50 mg/acet 325 mg/cod 30 mg/caf 40 mg

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

 $\blacktriangleright$  butalbital/aspirin/caffeine (C)(III)(G) <18 years: not recommended;  $\ge$ 18 years:

Fiorinal 1-2 tabs or caps q 4 hours prn; max 6 caps/tabs/day Tab/Cap: but 50 mg/asp 325 mg/caf 40 mg

butalbital/aspirin/codeine/caffeine (C)(III)(G) <18 years: not recommended; ≥18 years:</p>

Fiorinal with Codeine 1-2 caps q 4 hours prn; max 6 caps/day

Cap: but 50 mg/asp 325 mg/cod 30 mg/caf 40 mg

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

butorphanol tartrate(C)(IV)(G) <18 years: not recommended; ≥18 years: initially 1 spray (1 mg) in one nostril and may repeat after 60-90 minutes (Elderly 90-120 minutes) in opposite nostril if needed or 1 spray in each nostril and may repeat q 3-4 hours prn</p>

Butorphanol Nasal Spray Nasal spray: 1 mg/actuation (10 mg/ml, 2.5 ml) Stadol Nasal Spray Nasal spray: 1 mg/actuation (10 mg/ml, 2.5 ml)

**Comment**: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Rybix ODT <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended; Cirrhosis: max 50 mg q 12 hours

*ODT*: 50 mg (mint) (phenylalanine)

Ryzolt <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

Ultram <18 years: not recommended; ≥18 years: 50-100 mg q 4-6 hours prn; max 400 mg/day; *CrCl* <30 *mL/min*: max 100 mg q 12 hours; *Cirrhosis*: max 50 mg q 12 hours

*Tab*: 50\*mg

**Ultram ER** <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; *CrCl* <30 *mL/min*: or severe hebatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

tramadol/acetaminophen (C)(IV)(G) <18 years: not recommended; ≥18 years: 2
 tabs q 4-6 hours; max 8 tabs/day; 5 days; CrCl <30 mL/min: max 2 tabs q 12 hours;
 max 4 tabs/day x 5 days
</p>

Ultracet Tab: tram 37.5/acet 325 mg

Comment: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

### MAGNESIUM SUPPLEMENTS

magnesium (B)

Slow-Mag 2 tabs daily

Tab: 64 mg (as chloride)/110 mg (as carbonate)

magnesium oxide (B)

Mag-Ox 400 1-2 tabs daily

Tab: 400 mg

### **HEART FAILURE (HF)**

### ACE INHIBITORS (ACEIS)

captopril (C; D in 2nd, 3rd)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid; after 1-2 weeks may increase to 50 mg tid; max 450 mg/day</p>
Capoten Tab: 12.5\*, 25\*, 50\*, 100\*mg

Penalapril (D) <12 years: not recommended; ≥12 years: initially 5 mg daily; usual dosage range 10-40 mg/day; max 40 mg/day
</p>

Epaned Oral Solution Oral soln: 1 mg/ml (150 ml) (mixed berry)

Vasotec (G) Tab: 2.5\*, 5\*, 10, 20 mg

Monopril Tab: 10\*, 20, 40 mg

▶ lisinopril (D)

Prinivil <12 years: not recommended; ≥12 years: initially 10 mg daily; usual range 20-40 mg/day

Tab: 5\*, 10\*, 20\*, 40 mg

Qbrelis Oral Solution administer as a single dose once daily; <6 years, GFR <30 mL/min: not recommended; ≥6 years, GFR >30 mL/min: initially 0.07 mg/kg, max 5 mg; adjust according to BP up to a max 0.61 mg/kg (40 mg) once daily Oral soln: 1 mg/ml (150 ml)

Zestril <12 years: not recommended; ≥12 years: initially 10 mg daily; usual range 20-40 mg/day

Tab: 2.5, 5\*, 10, 20, 30, 40 mg

quinapril (C; D in 2nd, 3rd) <12 years: not recommended; ≥12 years: initially 5 mg
 bid; increase weekly to 10-20 mg bid
</p>

Accupril Tab: 5\*, 10, 20, 40 mg

ramipril (C; D in 2nd, 3rd) <12 years: not recommended; ≥12 years: initially 2.5 mg
 bid; usual maintenance 5 mg bid
</p>

Altace Tab/Cap: 1.25, 2.5, 5, 10 mg

trandolapril (C; D in 2nd, 3rd) <12 years: not recommended; ≥12 years: initially 1 mg daily; titrate to dose of 4 mg daily as tolerated
 Mavik Tab: 1\*, 2, 4 mg
</p>

### BETA-BLOCKERS (CARDIOSELECTIVE)

carvedilol (C)

Coreg <18 years: not recommended;  $\geq$ 18 years: initially 3.125 mg bid; may increase at 1-2 week intervals to 12.5 mg bid; usual max 50 mg bid

Tab: 3.125, 6.25, 12.5, 25 mg

Coreg CR <18 years: not recommended;  $\geq$ 18 years: initially 10 mg once daily x 2 weeks; may double dose at 2 week intervals; max 80 mg once daily; may open caps and sprinkle on food

Cap: 10, 20, 40, 80 mg cont-rel

> metoprolol succinate (C)(G) <12 years: not recommended; ≥12 years: initially 12.5-25 mg in a single dose daily; increase weekly if needed; reduce if symptomatic bradycardia occurs; max 400 mg/day

Toprol-XL Tab: 25\*, 50\*, 100\*, 200\*mg ext-rel

metoprolol tartrate (C)(G) <12 years: not recommended; ≥12 years: initially 25-50 mg bid; increase weekly if needed; max 400 mg/day
</p>

Lopressor Tab: 25, 37.5, 50, 75, 100 mg

### ANGIOTENSIN II RECEPTOR BLOCKERS (ARBs)

valsartan (C; D in 2nd, 3rd) <12 years: not recommended; ≥12 years: initially 40 mg bid; increase to 160 mg bid as tolerated or 320 mg daily after 2-4 weeks; usual range 80-320 mg/day</p>

Diovan Tab: 40\*, 80, 160, 320 mg

### NEPRILYSIN INHIBITOR/ARB COMBINATION

Sacubitril/valsartan (D) <12 years: not established; ≥12 years: initially 49/51 bid; double dose after 2-4 weeks; maintenance 97/103 bid; GFR <30 mL/min or moderate hepatic impairment: initially 24/26 bid; double dose every 2-4 weeks to target maintenance 97/103 bid</p>

#### Entresto

Tab: Entresto 24/26: sacu 24 mg/val 26 mg Entresto 49/51: sacu 49 mg/val 51 mg Entresto 97/103: sacu 97 mg/val 103 mg

### ALDOSTERONE RECEPTOR BLOCKER

Peplerenone (B) <12 years: not recommended; ≥12 years: initially 25 mg once daily; titrate within 4 weeks to 50 mg once daily; adjust dose based on serum K+</p>

Inspra Tab: 25, 50 mg

Comment: Inspra is contraindicated with concomitant potent CYP3A4 inhibitors. Risk of hyperkalemia with concomitant ACEI or ARB. Monitor serum potassium at baseline, 1 week, and 1 month. Caution with serum  $Cr > 2 \, mg/dL$  (male) or >1.8 mg/dL (female) and/or  $CrCl < 50 \, mL/min$ , and DM with proteinuria.

### THIAZIDE DIURETICS

Comment: Monitor hydration status, blood pressure, urine output, serum K+.

chlorothiazide (C)(G) <6 months: up to 15 mg/lb/day in 2 divided doses; ≥6 months-12 years: 10 mg/lb/day in 2 divided doses; >12 years: 0.5-1 gm/day in single or divided doses; max 2 g/day

Diuril Tab: 250\*, 500\*mg; Oral susp: 250 mg/5 ml (237 ml)

► hydrochlorothiazide (B)(G)

Esidrix <12 years: not recommended; ≥12 years: 25-100 mg once daily Tab: 25, 50, 100 mg

Microzide <12 years: not recommended; ≥12 years: 12.5 mg daily; usual max 50 mg/day

Cap: 12.5 mg

polythiazide (C) <12 years: not recommended; ≥12 years: 2-4 mg once daily Renese Tab: 1, 2, 4 mg

### POTASSIUM-SPARING DIURETICS

**Comment**: Monitor hydration status, blood pressure, urine output, serum K<sup>+</sup>.

> amiloride (B) <12 years: not recommended; ≥12 years: initially 5 mg once daily; may increase to 10 mg; max 20 mg</p>

Midamor Tab: 5 mg

⇒ spironolactone (D)(G) <12 years: not established; ≥12 years: initially 50-100 mg in a single or divided doses; titrate at 2 week intervals
</p>

**Aldactone** *Tab*: 25, 50\*, 100\*mg

#### LOOP DIURETICS

Comment: Monitor hydration status, blood pressure, urine output, serum K+

bumetanide (C)(G) <18 years: not recommended; ≥18 years: 0.5-2 mg as a single dose; may repeat at 4-5 hour intervals; max 10 mg/day</p>

Bumex Tab: 0.5\*, 1\*, 2\*mg

Comment: bumetanide is contraindicated with sulfa drug allergy.

- ethacrynic acid (B)(G) ≤1 month: not recommended; >1 month-12 years: initially 25 mg/day; then adjust dose in 25 mg increments; >12 years: max 50-200 mg once daily Edecrin Tab: 25, 50 mg
- ethacrynate sodium (B)(G) <1 month: not recommended; ≥1 month-12 years: use the smallest effective dose; initially 25 mg; then careful stepwise increments in dosage of 25 mg to achieve effective maintenance; ≥12 years: administer smallest dose required to produce gradual weight loss (about 1-2 pounds per day); onset of diuresis usually occurs at 50-100 mg in children ≥12 years; after diuresis has been achieved, the minimally effective dose (usually 50-200 mg/day) may be</p>

administered on a continuous or intermittent dosage schedule; dose titrations are usually in 25-50 mg increments to avoid derangement electrolyte and water excretion; the patient should be weighed under standard conditions before and during administration of *ethacrynate sodium*; the following schedule may be helpful in determining the lowest effective dose: *Day 1:* 50 mg once daily after a meal; *Day 2:* 50 mg bid after meals, if necessary; *Day 3:* 100 mg in the morning and 50-100 mg following the afternoon or evening meal, depending upon response to the morning dose; a few patients may require initial and maintenance doses as high as 200 mg bid; these higher doses, which should be achieved gradually, are most often required in patients with severe, refractory edema

Sodium Edecrin Vial: 50 mg single dose

Comment: Sodium Edecrin is more potent than more commonly used loop and thiazide diuretics. Treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome, short-term management of ascites due to malignancy, idiopathic edema, and lymphedema, short-term management of hospitalized pediatric patients, other than infants, with congenital heart disease or the nephrotic syndrome. IV Sodium Edecrin is indicated when a rapid onset of diuresis is desired, e.g., in acute pulmonary edema or when gastrointestinal absorption is impaired or oral medication is not practical.

furosemide (C)(G) <12 years: not established; ≥12 years: initially 40 mg bid
 Lasix Tab: 20, 40\*, 80 mg; Oral soln: 10 mg/ml (2, 4 oz w. dropper)
</p>

Comment: furosemide is contraindicated with sulfa drug allergy.

torsemide (B) <12 years: not established; ≥12 years: 5 mg once daily; may increase
to 10 mg daily
</p>

Demadex Tab: 5\*, 10\*, 20\*, 100\*mg

#### OTHER DIURETICS

 $\label{local_comment} \textbf{Comment: } Monitor\ hydration\ status,\ blood\ pressure,\ urine\ output,\ serum\ K^+.$ 

indapamide (B) <12 years: not established; ≥12 years: initially 1.25 mg once daily; may titrate dosage upward every 4 weeks if needed; max 5 mg/day</p>

Lozol Tab: 1.25, 2.5 mg

Comment: indapamide is contraindicated with sulfa drug allergy.

metolazone (B) <12 years: not established; ≥12 years: 2.5-5 mg once daily Comment: metolazone is contraindicated with sulfa drug allergy.

#### **DIURETIC COMBINATIONS**

Comment: Monitor hydration status, blood pressure, urine output, serum K+.

amiloride/hydrochlorothiazide (B)(G) <12 years: not established; ≥12 years: initially 1 tab once daily; may increase to 2 tabs/day in a single or divided doses
 Moduretic Tab: amil 5 mg/hydro 50 mg\*
</p>

► spironolactone/hydrochlorothiazide (D)(G)

Aldactazide <12 years: not established; ≥12 years: 25 usual maintenance 50-100 mg in a single or divided doses

Tab: spiro 25 mg/hydro 25 mg

Aldactazide 50 <12 years: not established; ≥12 years: usual maintenance 50-100 mg in a single or divided doses

Tab: spiro 50 mg/hydro 50 mg

triamterene/hydrochlorothiazide (C)(G)

Dvazide <12 years: not established; ≥12 years: 1-2 caps daily

Cap: triam 37.5 mg/hydro 25 mg

Maxzide <12 years: not established; ≥12 years: 1 tab once daily

Tab: triam 75 mg/hydro 50 mg\*

Maxzide-25 <12 years: not established; ≥12 years: 1-2 tabs once daily

Tab: triam 37.5 mg/hydro 25 mg\*

### NITRATE/PERIPHERAL VASODILATOR COMBINATION

isosorbide dinitrate/hydralazine (C) <12 years: not established; ≥12 years: initially 1 tab tid; may reduce to 1/2 tab tid if not tolerated; titrate as tolerated after 3-5 days; max 2 tabs tid

BiDil Tab: isosor 20 mg/hydral 37.5 mg

Comment: BiDil is an adjunct to standard therapy in self-identified Black persons to improve survival, to prolong time to hospitalization for heart failure, and to improve patient-reported functional status.

### CARDIAC GLYCOSIDES

Comment: Therapeutic serum level of is 0.8-2 mcg/ml.

digoxin (C)(G) Total oral pediatric digitalizing dose (in 24 hours): <2 years: 40-50 mcg/kg; 2-10 years: 30-40 mcg/kg; >10 years: 0.75-1.5 mg; Daily oral pediatric maintenance dose (single dose): <2 years: 10-12 mcg/kg; 2-10 years: 8-10 mcg/kg; >10 years: 0.125-0.5 mg; 1-1.5 mg IM, IV, or PO in divided doses over 1-3 days as a loading dose; usual maintenance 0.125-0.5 mg/day

Comment: For more information on the use of *digoxin* in heart failure, see Jain, S., & Vaidyanathan, B. (2009). Digoxin in management of heart failure in children: Should it be continued or relegated to the history books? *Annals of Pediatric Cardiology*, 2(2), 149–152.

Lanoxicaps <10 years: use elixir or parenteral form

Cap: 0.05, 0.1, 0.2 mg soln-filled (alcohol)

Lanoxin < 10 years: use elixir <u>or</u> parenteral form

*Tab*: 0.0625, 0.125\*, 0.1875, 0.25\*mg; *Elix*: 0.05 mg/ml (2 oz w. dropper) (lime) (alcohol 10%)

Lanoxin Injection Amp: 0.25 mg/ml (2 ml)

Lanoxin Injection Pediatric Amp: 0.1 mg/ml (1 ml)

#### OTHER

ivabradine (D) <18 years: not established; ≥18 years: initially 5 mg bid with food; assess after 2 weeks and adjust dose to achieve a resting heart rate 50-60 bpm; thereafter, adjust dose as needed based on resting heart rate and tolerability; max 7.5 mg bid; in patients with a history of conduction defects, or for whom bradycardia could lead to hemodynamic compromise, initiate at 2.5 mg bid before increasing the dose based on heart rate</p>

Corlanor Tab: 5, 7.5 mg

**Comment:** Corlanor is indicated to reduce the risk of hospitalization for worsening heart failure in patients with stable, symptomatic, chronic heart failure with left ventricular ejection fraction (LVEF)  $\leq$ 35%, who are in sinus rhythm with resting heart rate  $\leq$ 70 bpm and either are on maximally tolerated doses of beta-blockers <u>or</u> have a contraindication to beta-blocker use. **Corlanor** 

is contraindicated with acute decompensated heart failure, BP <90/50, sick sinus syndrome (SSS), sino-atrial block, and 3rd degree AV block (unless patient has a functioning demand pacemaker). **Corlanor** may cause fetal toxicity when administered to pregnant females based on embryo-fetal toxicity and cardiac teratogenic effects observed in animal studies. Therefore, females should to use effective contraception when taking this drug.



### HELICOBACTER PYLORI (H. PYLORI) INFECTION

#### **ERADICATION REGIMENS**

Comment: There are many H2 receptor blocker-based and PPI-based treatment regimens suggested in the professional literature for the eradication of the *H. pylori* organism and subsequent ulcer healing. Generally, regimens range from 10-14 days for eradication and 2-6 more weeks of continued gastric acid suppression. A three-or four-antibiotic combination may increase treatment effectiveness and decrease the likelihood of resistant strain emergence. Empirical treatment is not recommended. Diagnosis should be confirmed before treatment is started. Antibiotic choices include *doxycycline*, *tetracycline*, *amoxicillin*, *amoxicillin/clavulanate*, *clarithromycin*, *clindamycin*, and *metronidazole*. Follow-up visits are recommended at 2 and 6 weeks to evaluate treatment outcomes.

- Regimen 1: Helidac Therapy (D) bismuth subsalicylate <12 years: not recommended; ≥12 years: 525 mg qid + tetracycline 500 mg qid + metronidazole 250 mg qid x 14 days; Pack: bismuth subsalicylate chew tab: 262.4 mg (112/pck); tetracycline cap: 500 mg(56/pck); metronidazole Tab: 250 mg (56/pck)</p>
- Regimen 2: PrevPac (D)(G) <12 years: not recommended; ≥12 years: amoxicillin 500 mg 2 caps bid + lansoprazole 30 mg bid+ clarithromycin 500 mg bid x 14 days (one card per day); Kit: lansoprazole cap: 30 mg (2/card); amoxicillin cap: 500 mg (4/card); clarithromycin tab: 500 mg (2/card) (14 daily cards/carton)</p>
- Regimen 3: Pylera (D) <12 years: not recommended; ≥12 years: take 3 caps qid after meals and at bedtime x 10 days; take with 8 oz water <u>plus omeprazole</u> 20 mg bid, with breakfast and dinner, for 10 days
  Cap: bismuth subsalicylate 140 mg/tetracycline 125 mg/metronidazole 125 mg (120 caps)
  - Comment: omeprazole not included with Pylera.
- Regimen 4: Omeclamox-Pak (C) <12 years: not recommended; ≥12 years: omeprazole 20 mg bid + amoxicillin 1000 bid +clarithromycin 500 mg bid x 10 days Kit: omeprazole cap: 20 mg (2/pck); amoxicillin cap: 500 mg (4/pck); clarithromycin tab: 500 mg (2/pck) (10 pcks/carton)</p>
- Regimen 5: (C) <12 years: not recommended; ≥12 years: omeprazole 40 mg daily + clarithromycin 500 mg tid x 2 weeks; then continue omeprazole 10-40 mg daily x 6 more weeks</p>
- Regimen 6: (B) <12 years: not recommended; ≥12 years: lansoprazole 30 mg tid + amoxicillin 1 gm tid x 10 days; then continue lansoprazole 15-30 mg daily x 6 more weeks</p>
- Regimen 7: (C) <12 years: not recommended; ≥12 years: omeprazole 40 mg daily + amoxicillin 1 gm bid + clarithromycin 500 mg bid x 10 days; then continue omeprazole 10-40 mg daily x 6 more weeks</p>
- Regimen 8: (D) <12 years: not recommended; ≥12 years: bismuth subsalicylate 525 mg qid + metronidazole 250 mg qid + tetracycline 500 mg qid + H2 receptor agonist x 2 weeks; then continue H2 receptor agonist x 6 more weeks</p>

- Regimen 9: (not for use in 1st; B in 2nd, 3rd) <12 years: not recommended; ≥12 years: bismuth subsalicylate 525 mg qid + metronidazole 250 mg qid + amoxicillin 500 mg qid + H2 receptor agonist x 2 weeks; then continue H2 receptor agonist x 6 more weeks receptor agonist x 2 weeks; then continue H2 receptor agonist x 6 more weeks</p>
- Regimen 10: (C) <12 years: not recommended; ≥12 years: ranitidine bismuth citrate 400 mg bid + clarithromycin 500 mg bid x 2 weeks; then continue ranitidine bismuth citrate 400 mg bid x 2 more weeks</p>
- Regimen 11: (D) <12 years: not recommended; ≥12 years: omeprazole 20 mg or lansoprazole 30 mg q AM + bismuth subsalicylate 524 mg qid + metronidazole 500 mg tid + tetracycline 500 mg qid x 2 weeks; then continue omeprazole 20 mg or lansoprazole 30 mg q AM for 6 more weeks</p>

### **HEMORRHOIDS**

dibucaine (C)(OTC)(G) <12 years: not recommended; ≥12 years: 1 applicatorful or suppository bid and after each stool; max 6/day
</p>

Nupercainal (OTC) Rectal oint: 1% (30, 60 gm); Rectal supp: 1% (12, 14/pck)

▶ hydrocortisone (C)(OTC)(G)

Anusol-HC 1 <12 years: not recommended;  $\geq$ 12 years: suppository rectally bidtid or 2 suppositories bid x 2 weeks

Rectal supp: 25 mg (12, 24/pck)

**Anusol-HC Cream** <12 years: not recommended;  $\geq$ 12 years: 2.5% apply bid-qid prn

Rectal crm: 2.5% (30 gm)

**Anusol HC-1** <12 years: not recommended; ≥12 years: apply tid-qid prn; max 7 days

Rectal crm: 1% (0.7 oz)

**Hydrocortisone Rectal Cream** <12 years: not recommended; ≥12 years: apply tid-qid prn; max 7 days

Rectal crm: 1, 2.5% (30 gm)

Nupercainal <12 years: not recommended; ≥12 years: apply tid-qid prn Rectal crm: 1% (30 gm)

Proctocort <12 years: not recommended; ≥12 years: 1 suppository rectally bidtid prn or 2 suppositories bid x 2 weeks

Rectal supp: 30 mg (12/pck)

**Proctocream** HC 2.5% <12 years: not recommended; ≥12 years: apply rectally bid-qid prn

Rectal crm: 2.5% (30 gm)

**Proctofoam HC** 1% <12 years: not recommended;  $\geq$ 12 years: apply rectally tid-qid prn

Rectal foam: 1% (14 applications/10 gm)

hydrocortisone/pramoxine (C) <12 years: not recommended; ≥12 years: 1 applicatorful tid-qid and after each stool; max 2 weeks</p>

**Procort** *Rectal crm: hydro* 1.85%/*pramox* 1.15% (30 gm)

hydrocortisone/lidocaine (B) <12 years: not recommended; ≥12 years: apply bid-tid prn</p>

AnaMantle HC, LidaMantle HC Crm/Lotn: hydrocort 5%/lido 3% (1 oz)

petrolatum/mineral oil/shark liver oil/phenylephrine (C)(OTC)(G)

**Preparation H Ointment** <12 years: not recommended; ≥12 years: apply up to qid prn

Rectal oint: 1, 2 oz

▶ petrolatum/glycerin/shark liver oil/phenylephrine (C)(OTC)(G)

Preparation H Cream <12 years: not recommended; ≥12 years: apply up to qid prn

Rectal crm: 0.9, 1.8 oz.

▶ phenylephrine/cocoa butter/shark liver oil (C)(OTC)(G)

Preparation H Suppositories <12 years: not recommended;  $\geq$ 12 years: 1 suppository or 1 application of rectal ointment or cream, up to qid

Rectal supp: phenyle 0.25%/cocoa 85.5%/shark 3% (12, 24, 45/pck); Rectal oint: phenyle 0.25%/petro 1.9%/mineral oil 14%/shark liv 3% (1, 2 oz); Rectal crm: phenyle 0.25%/petro 18%/gly 12%/shark liv 3% (0.9, 1.8 oz)

*witch hazel* topical solution/gel (NE)(OTC)

Tucks <12 years: not recommended; ≥12 years: apply up to 6 x/day; leave on x 5-15 minutes

Pad: 12, 40, 100/pck; Gel: 19.8 g

▶ lidocaine 3% cream (B) <12 years: reduce dosage commensurate with age, body weight, and physical condition; ≥12 years: apply bid-tid prn</p>

LidaMantle Crm: 3% (1 oz)

Bulk-forming Agents, Stool Softeners, and Stimulant Laxatives  $see\ Constipation\ page\ 87$ 

### **HEPATITIS A (HAV)**

Comment: Administer a 2-dose series. Schedule first immunization at least 2 weeks before expected exposure. Booster dose recommended 6-12 months later. Under 1 year-of-age administer in the vastus lateralis; over 1 year-of-age administer in deltoid.

### PROPHYLAXIS (HEPATITIS A)

hepatitis A vaccine, inactivated (C)

Havrix 1,440 El.U IM <2 years: not recommended; 2-18 years: 0.5 ml IM; repeat in 6-18 months; >18 years: repeat in 6-12 months

Vial: 25 U/ml single dose (preservative-free); Prefilled syringe: 25 U/ml, (0.5, 1 ml single dose)

Vaqta 25  $\dot{U}$  (1 ml) IM; <2 years: not recommended; 2-18 years: 0.5 ml IM; repeat in 6-18 months; >18 years: repeat in 6 months

Vial: 25 U/ml single dose (preservative-free); Prefilled syringe: 25 U/ml, (0.5, 1 ml single dose)

### PROPHYLAXIS (HEPATITIS A AND B COMBINATION)

hepatitis A inactivated/hepatitis B surface antigen (recombinant vaccine) (C) Twinrix <18 years: not recommended; ≥18 years: 1 ml IM in deltoid; repeat in 1 month and 6 months</p>

Vial (soln): hepatitis A inactivated 720 IU/hepatitis B surface antigen (recombinant) 20 mcg/ml (1, 10 ml); Prefilled syringe: hepatitis A inactivated 720 IU/hepatitis B surface antigen (recombinant) 20 mcg/ml

### **HEPATITIS B (HBV)**

### PROPHYLAXIS (HEPATITIS B)

Comment: Administer IM; under 1 year-of-age, administer in vastus lateralis. Over 1 year-of-age, administer in the deltoid. Administer a 3-dose series; *First dose*: newborn (or now); *Second dose*: 1-2 months after first dose; *Third dose*: 6 months after first dose. hepatitis B recombinant vaccine (C)

Engerix-B Adult infant-19 years: 10 mcg (1/2 ml) IM; repeat in 1 and 6 month; >19 years: 20 mcg (1 ml) IM; repeat in 1 and 6 months

Vial: 20 mcg/ml single dose (preservative-free, thimerosal); Prefilled syringe: 20 mcg/ml

Engerix-B Pediatric/Adolescent infant-19 years: 10 mcg IM; repeat in 1 and 6 months

Vial: 10 mcg/0.5 ml single dose (preservative-free, thimerosal)

Prefilled syringe: 10 mcg/0.5 ml

 ${f Recombivax\, HB\, Adult} >$  19 years: 10 mcg (1 ml) IM in deltoid; repeat in 1 and 6 months

Vial: 10 mcg/ml single dose; Vial: 10 mcg/3 ml multidose

Recombivax HB Pediatric/Adolescent birth-19 years: 5 mcg (0.5 ml) IM; repeat in 1 and 6 months; ≥19 years: use adult formulation or 10 mcg (1 ml) pediatric/adolescent formulation; <19 years: 5 mcg (0.5 ml) IM; repeat in 1 and 6 months *Vial*: 5 mcg/0.5 ml single dose

### PROPHYLAXIS (HEPATITIS A AND B COMBINATION)

Twinrix 1 ml IM in deltoid; repeat in 1 and 6 months

Vial (soln): hepatitis A inactivated 720 IU/hepatitis B surface antigen (recombinant) 20 mcg/ml (1, 10 ml); Prefilled syringe: hepatitis A inactivated 720 IU/hepatitis B surface antigen (recombinant) 20 mcg/ml

#### CHRONIC HRV INFECTION TREATMENT

# Nucleoside Analogs (Reverse Transcriptase Inhibitors and HBV Polymerase Inhibitors)

**Comment**: Nucleoside analogs are indicated for chronic hepatitis infection with viral replication and either elevated ALT/AST or histologically active disease.

adefovir dipivoxil (C)(G) <12 years: not recommended; ≥12 years: 10 mg daily; CrCl 20-49 mL/min: 10 mg q 48 hours; CrCl 10-19 mL/min: 10 mg q 72 hours Hepsera Tab: 10 mg

entecavir (C)(G) take on an empty stomach; <16 years: not recommended; ≥16 years: Nucleoside naïve: 0.5 mg daily; Nucleoside naïve, CrCl 30-49 mL/min: 0.25 mg daily; Nucleoside naïve, CrCl 10-29 mL/min: 0.15 mg daily; Nucleoside naïve, CrCl <10 mL/min: 0.05 mg daily; lamivudine-refractory: 1 mg daily; lamivudine-refractory, renal impairment: see mfr pkg insert</p>

Baraclude Tab: 0.5, 1 mg; Oral Soln: 0.05 mg/ml (orange; parabens)

▶ lamivudine (C)(G) <2 years: not recommended; 2-17 years: 3 mg/kg (max 100 mg) once daily; >17 years: 100 mg daily; CrCl <5 mL/min: 35 mg for 1st dose, then 10 mg once daily; CrCl 5-14 mL/min: 35 mg for 1st dose, then 15 mg once daily; CrCl 15-29 mL/min: 100 mg for 1st dose, then 25 mg once daily; CrCl 30-49 mL/min: 100 mg for 1st dose, then 50 mg once daily</p>

Epivir-HBV Tab: 100 mg

Epivir-HBV Oral Solution Oral Soln: 5 mg/ml (240 ml) (strawberry-banana)

▶ telbivudine (C) <2 years: not recommended; 2-17 years: 3 mg/kg (max 100 mg)
once daily; >17 years: 600 mg daily; CrCl <40 mL/min: 600 mg q 72 hours; CrCl
30-49 mL/min: 600 mg q 48 hours

Tyzeka Tab: 600 mg

► tenofovir alafenamide (TAF) (C) <18 years: not established; take with food; ≥18 years: take 1 tab once daily with concomitant carbamazepine 2 tablets

Vemlidy Tab: 25 mg

Comment: No dosage adjustment of Vemlidy is required in patients with mild hepatic impairment (Child-Pugh A). The safety and efficacy of Vemlidy in patients with decompensated cirrhosis (Child-Pugh B or C) have not been established; therefore Vemlidy is not recommended in patients with decompensated (Child-Pugh B or C) hepatic impairment, Healthcare providers are encouraged to register patients by calling the Antiretroviral Pregnancy Registry (APR) at 1-800-258-4263.

### Interferon Alpha

interferon alfa-2b (C) <1 year: not recommended; >1 year-12 years: 3 million IU/m 23 times/week x 1 week; then increase to 6 million IU/m² 3 times/week to 16-24 weeks; max 10 million IU/dose; reduce dose by half or interrupt dose if WBCs, granulocyte count, or platelet count decreases; >12 years: 5 million IU SC or IM daily or 10 million IU SC or IM 3 times/week x 16 weeks; reduce dose by half or interrupt dose if WBCs, granulocyte count, or platelet count decreases

Intron A *Vial (pwdr)*: 5, 10, 18, 25, 50 million IU/vial (pwdr + diluent; single dose) (benzoyl alcohol); *Vial (soln)*: 3, 5, 10 million IU/vial (single dose); *Multidose vials (soln)*: 18, 25 million IU/vial soln; *Multidose pens (soln)*: 3, 5, 10 million IU/0.2 ml (6 doses/pen)

### HEPATITIS C (HCV)

#### CHRONIC HCV INFECTION TREATMENT

### **Nucleoside Analogs (Reverse Transcriptase Inhibitors)**

Comment: Nucleoside analogs are indicated for patients with compensated liver disease previously untreated with *alpha interferon* or who have relapsed after *alpha interferon* therapy. Primary toxicity is hemolytic anemia. Contraindicated in male partners of pregnant females; use 2 forms of contraception during therapy and for 6 months after discontinuation.

▶ ribavirin (X)(G) <5 years: not established; >5-<18 years: 23-33 kg: 400 mg/day; 34-46 kg: 600 mg/day; 47-59 kg: 800 mg/day; 60-75 kg: 1 gm/day; 1.2 gm/day; >75 kg: Genotype 2, 3: treat for 24 weeks; Genotype 1, 4: treat for 48 weeks; reduce dose or discontinue if hematologic abnormalities occur; >18 years: take with food in 2 divided doses; Genotype 2, 3: 800 mg/day x 24 weeks; Genotype 1, 4, <75 kg: 1 gm/day x 48</p>

weeks; >75 km 1.2 gm/day x 48 weeks; HIV co-infection: 800 mg/day x 48 weeks; CrCl 30-50 mL/min: alternate 200 mg and 400 mg every other day; CrCl <30 mL/min or hemodialysis: reduce dose or discontinue if hematologic abnormalities occur

Copegus Tab: 200 mg Rebetol Cap: 200 mg

Rebetol Oral Solution Oral soln: 40 mg/ml (120 ml) (bubble gum)

Ribasphere RibaPak 600 mg Tab: 600 mg (14/pck)

### Interferon Alpha

interferon alfacon-1 (C)

Infergen <18 years: not recommended; ≥18 years: 9 mcg SC 3 times/week x 24 weeks, then 15 mcg SC 3 times/week x 6 months; allow at least 48 hours between doses

Vial (soln): 9, 15 mcg/vial soln (6-single dose/pck; preservative-free)

▶ interferon alfa-2b (C)

Intron A <18 years: not recommended; ≥18 years:

Vial (pwdr y. 5, 10, 18, 25, 50 million IU/vial (pwdr w. diluent; single dose) (benzoyl alcohol); Vial (soln): 3, 5, 10 million IU/vial (single dose); Multidose vials (soln): 18, 25 million IU/vial; Multidose pens (soln): 3, 5, 10 million IU/0.2 ml (6 doses/pen)

peginterferon alfa-2a (C) administer 180 mcg SC once weekly (on the same day of the week); treat for 48 weeks; consider discontinuing if adequate response after 12-24 weeks

PEGasys Vial: 180 mcg/ml (single dose); Monthly pck (vials): 180 mcg/ml (1 ml, 4/pck)

peginterferon alfa-2b (C) <18 years: not recommended; ≥18 years: administer SC once weekly (on the same day of the week); treat for 1 year; consider discontinuing if inadequate response after 24 weeks; 37-45 kg: 40 mcg (100 mg/ml, 0.4 ml); 46-56 kg: 50 mcg (100 mg/ml, 0.5 ml); 57-72 kg: 64 mcg (160 mg/ml, 0.4 ml); 73-88 kg: 80 mcg (160 mg/ml, 0.5 ml); 89-106 kg: 96 mcg (240 mg/ml, 0.4 ml); 107-136 kg: 120 mcg (240 mg/ml, 0.5 ml); 137-160 kg: 150 mcg (300 mg/ml, 0.5 ml)</p>

PEG-Intron Vial: 50, 80, 120, 150 mcg/ml (single dose)

PEG-Intron Redipen Pen: 50, 80, 120, 150 mcg/ml (disposable pens)

#### HCV NS5A Inhibitor

daclatasvir (X) <18 years: not recommended; ≥18 years: 60 mg once daily for 12 weeks (with sofosbuvir); if sofosbuvir is discontinued, daclatasvir should also be discontinued; with concomitant CY3P inhibitors, reduce dose to 30 mg once daily; with concomitant CY3P inducers, increase dose to 90 mg once daily
</p>

Daklinza Tab: 30, 60 mg

**Comment:** Daklinza is indicated in combination with *sofosbuvir* with <u>or</u> without *ribavirin*, for the treatment of HCV genotypes 1 and 3, and in patients with comorbid HIV-1 infection, advanced cirrhosis, <u>or</u> post-liver transplant recurrence of HCV.

#### HCV NS5B POLYMERASE INHIBITOR

> sofosbuvir (B) <12 years: not established; ≥12-17 years, ≥35 kg (77 lb): take with or without food; taken only as a component on a combination antiviral treatment regimen; Genotype 2: 400 mg once daily <u>plus ribavirin</u> x 12 weeks without cirrhosis or with compensated cirrhosis; Genotype 3: 400 mg once daily <u>plus ribavirin</u> x 24 weeks without cirrhosis or with compensated cirrhosis; ≥18 years: Genotype 1: 400 mg once daily <u>plus simeprevir</u> x12 weeks or x 24 weeks; Alternate: 400 mg once daily with daclatasvir x12 weeks (Genotype 2: 400 mg once daily <u>plus daclatasvir</u> x12 weeks or x 16-24 weeks (duration depends on cirrhosis status--refer to AASLD/IDSA hepatitis C guidelines; Genotype 3: 400 mg once daily <u>plus daclatasvir</u> x12 weeks; Genotype 4: 400 mg once daily <u>plus daclatasvir</u> x 12 weeks; Hepatocellular Cancer Awaiting Transplant: 400 mg once daily <u>plus ribavirin</u>

Sovaldi Tab: 400 mg film-coat

Comment:  $CrCl \ge 30$ : no adjustment; CrCl < 30: not defined; Hemodialysis: not defined; Hepatic Impairment: no adjustment; Decompensated Hepatic Disease: not defined. Refer to AASLD/IDSA hepatitis C guidelines for more information. Because Sovaldi is used in combination with other antiviral drugs for treatment of HCV infection, consult the prescribing information for these drugs used in combination with Sovaldi. Warnings and precautions related to these drugs also apply to their use in Sovaldi combination treatment. Hepatitis B virus (HBV) reactivation has been reported in HCV/HBV co-infected patients who were undergoing or had completed treatment with HCV direct acting antivirals, and who were not receiving HBV antiviral therapy. Some cases have resulted in fulminant hepatitis, hepatic failure, and death. Cases have been reported in patients who are HBsAg positive and also in patients with serologic evidence of resolved HBV infection (i.e., HBsAg negative and anti-HBc positive). HBV reactivation has also been reported in patients receiving certain immunosuppressant or chemotherapeutic agents; the risk of HBV reactivation associated with treatment with HCV direct-acting antivirals may be increased in these patients. HBV reactivation is characterized as an abrupt increase in HBV replication manifesting as a rapid increase in serum HBV DNA level. In patients with resolved HBV infection, reappearance of HBsAg can occur. Reactivation of HBV replication may be accompanied by hepatitis, i.e., increases in aminotransferase levels and, in severe cases, increases in bilirubin levels, liver failure, and death can occur. P-gp inducers (e.g., *rifampin*, St. John's wort) in the intestine may significantly decrease sofosbuvir plasma concentrations and may lead to a reduced therapeutic effect of Sovaldi: therefore, the use of rifampin and St. John's wort with Sovaldi is not recommended. Serious risk of symptomatic bradycardia when co-administered with amiodarone and another HCV direct-acting antiviral (DAA).

#### HCV NS5A Inhibitor/HCV NS3/4A Protease Inhibitor Combinations

elbasvir/grazoprevir (NE) <18 years: not recommended; ≥18 years: 1 tab as a single dose once daily; see mfr pkg insert for length of treatment

Zepatier Tab: elba 50 mg/grazo 100/mg

Comment: Zepatier is contraindicated with moderate or severe hepatic impairment, concomitant atazanavir, carbamazepine, cyclosporine, darunavir, efavirenz, lopinavir, phenytoin, rifampin, saquinavir, St. John's wort, tipranavir. When co-administered with ribavirin, pregnancy category (X).

## HCV NS5A Inhibitor/HCV NS3/4A Protease Inhibitor/CYP3A Inhibitor Combinations

**>** *ombitasvir/paritaprevir/ritonavir* (B) <18 years: not recommended; ≥18 years: 2 tabs once daily in the AM x 12 weeks

Technivie *Tab: omvi* 25 mg/*pari* 75 mg/*rito* 50 mg (4 x 7 daily dose pcks/carton) Comment: Technivie is indicated for use in chronic HCV genotype 4 without cirrhosis. Technivie is not for use with moderate hepatic impairment.

#### **HCV NS3/4A Protease Inhibitor Combinations**

boceprevir (C) <18 years: not recommended; ≥18 years: 800 mg 3 times/day; take with food (not low-fat); not for monotherapy; start after 4 weeks therapy with peginterferon and discontinue if HCV-RNA levels indicate futility ribavirin; Without cirrhosis: continue as indicated by HCV-RNA levels at weeks 8, 12, and 24; With cirrhosis: continue for 44 weeks; do not reduce dose</p>

Victrelis Cap: 200 mg

Simeprevir (C) <18 years: not recommended; ≥18 years: 150 mg once daily; swallow whole; take with food, not for monotherapy; do not reduce dose or interrupt therapy; if discontinued, do not reinitiate; discontinue if HCV-RNA levels indicate futility; discontinue if peginterferon, ribavirin, or sofosbuvir is permanently discontinued; Treatment-naïve, treatment relapses, with or without cirrhosis: treat x 12 weeks (sime-previr + peginterferon + ribavirin) followed by additional 12 weeks peginterferon + ribavirin (total = 24 weeks). Partial and non-responders, with or without cirrhosis: treat x 12 weeks (simeprevir + peginterferon + ribavirin) followed by additional 36 weeks peginterferon + ribavirin (total = 48 weeks); Treatment-naïve or treatment-experienced without cirrhosis: treat x 12 weeks (simeprevir + sofosbuvir); Treatment-naïve or treatment-experienced with cirrhosis: treat x 24 weeks (simeprevir + sofosbuvir)</p>

Olysio Cap: 150 mg

#### HCV NS5A Inhibitor/HCV NS5B Polymerase Inhibitor Combinations

ledipasvir/sofosbuvir (NE) <12 years: not recommended; ≥12 years: Treatmentnaïve, without cirrhosis, with pretreatment HCV RNA <6 million IU/ml: 1 tab daily x 8 weeks; Treatment-naïve with or without cirrhosis or treatment-experienced without cirrhosis: 1 tab daily x 12 weeks; Treatment-experienced with cirrhosis: 1 tab daily x 24 weeks; In combination with ribayirin: 1 tab daily x 12 weeks

Harvoni Tab: ledi 90 mg/sofo 400 mg

Comment: Harvoni is indicated for patients with advanced liver disease, genotype 1, 4, 5, or 6 infection: chronic HCV genotype 1- or 4-infected liver transplant recipients with or without cirrhosis or with compensated cirrhosis (Child-Pugh A), and for HCV genotype 1-infected patients with decompensated cirrhosis (Child-Pugh B/C), including those who have undergone liver transplantation. No adequate human data are available to establish whether or not Harvoni poses a risk to pregnancy outcomes; the background risk of major birth defects and miscarriage for the indicated population is unknown. If Harvoni is administered with *ribavirin*, the combination regimen is contraindicated (X) in pregnant females and in males whose female partners are pregnant. It is not known whether Harvoni and its metabolites are present in human breast milk, affect human milk production, or have effects on the breastfed infant. If Harvoni is administered with *ribavirin*, the nursing mother's information for *ribavirin* also applies to this combination regimen.

Sofosbuvir/velpatasvir (NE) <18 years: not established; ≥18 years: Without cirrhosis or compensated cirrhosis (Child-Pugh A): 1 tablet daily x 12 weeks; Decompensated cirrhosis (Child Pugh B or C): 1 tablet daily plus ribavirin (RBV)</p>

Epclusa Tab: sofo 400 mg/velpa 100 mg

Comment: Epclusa is indicated for patients with chronic HCV with genotype 12, 3, 4, 5, or 6 infection.

### HCV NS5A Inhibitor/HCV NS3/4A Protease Inhibitor/CYP3A Inhibitor Combination

Sofosbuvir/velpatasvir (B) <12 years: not established; ≥12 years: 1 tab daily Viekira XR Tab: dasa 200 mg/omvi 8.33 mg/pari 50 mg/rito 33.33 mg ext-rel (4 weekly cartons, each containing 7 daily dose packs/carton)

Comment: Viekira XR is indicated for HCV genotype 1 with mild liver dysfunction (Child-Pugh A). Viekira XR is contraindicated for moderate (Child-Pugh B) to severe (Child-Pugh C) liver dysfunction. No adjustment is recommended with mild, moderate, or severe renal dysfunction.

## HCV NS5A Inhibitor/HCV NS3/4A Protease Inhibitor/CYP3A Inhibitor PLUS HCV NS5B Polymerase Inhibitor Combination

ombitasvir/paritaprevir/ritonavir plus dasabuvir (B)

Viekira Pak *ombitasvir/paritaprevir/ritonavir* fixed-dose combination tablet: <12 years: not established; ≥12 years: 2 tablets orally once a day (in the morning); *dasabuvir*: 250 mg orally twice a day (morning and evening)

Tab: omvi 12.5 mg/pari 75 mg/rito 50 mg plus Tab: dasa 250 mg (28 day supply/pck)

Comment: Viekira Pak is indicated for mild liver dysfunction (Child-Pugh A). Viekira Pak is contraindicated for moderate (Child-Pugh B) to severe (Child-Pugh C) liver dysfunction. No adjustment is recommended with mild, moderate, or severe renal dysfunction.

#### SOVALDI/HARVONI/RIBAVIRIN COMBINATION TREATMENT REGIMEN

**Comment:** For this FDA-approved triple therapy regimen, follow the recommended regimen for each individual drug. Patients who are co-infected with hepatitis B are at risk for HBV reactivation during or after treatment with HCV direct-acting retrovirals. Therefore, patients should be screened for current or past HBV infection before starting this triple therapy regimen.



#### **HERPANGINA**

#### ANALGESICS

acetaminophen (B) see Fever page 136

► tramadol (C)(IV)(G)

Comment: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Rybix ODT <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended; Cirrhosis: max 50 mg q 12 hours ODT: 50 mg (mint) (phenylalanine)

Ryzolt <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

Ultram <18 years: not recommended; ≥18 years: 50-100 mg q 4-6 hours prn; max 400 mg/day; *CrCl* <30 *mL/min*: max 100 mg q 12 hours; *Cirrhosis*: max 50 mg q 12 hours

*Tab*: 50\*mg

**Ultram ER** <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; *CrCl* <30 *mL/min*: or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

tramadol/acetaminophen (Č)(IV)(G) < 12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 2 tabs q 4-6 hours; max 8 tabs/day; 5 days; CrCl < 30 mL/min: max 2 tabs q 12 hours; max 4 tabs/day x 5 days
</p>

Ultracet Tab: tram 37.5/acet 325 mg

**Comment:** *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

#### **TOPICAL ANESTHETICS**

▶ lidocaine viscous soln (B) <4 years: apply 1.25 ml to affected area with cotton-tipped applicator; may repeat after 3 hours; max 8 doses/day; ≥4 years, able to gargle or rinse/spit: 15 ml gargle or rinse/spit; repeat after 3 hours; max 8 doses/day Xylocaine 2% Viscous Solution Viscous soln: 2% (20, 100, 450 ml) Antipyretics see Fever page 136</p>

### **HERPES GENITALIS (HSV TYPE II)**

Comment: The following treatment regimens are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treatment regimens are for patients 18 years-of-age or older only; consult a specialist for treatment of patients less than 18 years-of-age. Treatment regimens are presented in alphabetical order by generic drug name, followed by a listing of brands with dose forms.

#### RECOMMENDED REGIMENS: FIRST CLINICAL EPISODE

#### Regimen 1

acyclovir <18 years: not established; ≥18 years: 400 mg tid x 7-10 days or 200 mg 5 times/day x 10 days or until clinically resolved</p>

#### Regimen 2

acyclovir cream <18 years: not established; ≥18 years: apply q 3 hours 6 x/day x 7 days</p>

#### Regimen 3

Famciclovir <18 years: not established; ≥18 years: 250 mg tid x 7-10 days or until clinically resolved

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#### Regimen 4

valacyclovir <18 years: not established; ≥18 years: 1 gm bid x 10 days or until clinically resolved

#### RECOMMENDED RECURRENT/EPISODIC REGIMENS

Comment: Initiate treatment of recurrent episodes within 1 day of onset of lesions.

#### Regimen 1

*acyclovir* <18 years: not established; ≥18 years: 200 mg 5 times/day x 5 days

#### Regimen 2

 $\blacktriangleright$  famciclovir <18 years: not established; ≥18 years: 125 mg bid x 5 days

#### Regimen 3

valacyclovir <18 years: not established; ≥18 years: 500 mg bid x 3-5 days or until clinically resolved</p>

#### SUPPRESSION THERAPY REGIMENS

#### Regimen 1

► acyclovir <18 years: not established; ≥18 years: 400 mg bid x 1 year

#### Regimen 2

ightharpoonup famciclovir <18 years: not established; ≥18 years: 250 mg bid x 1 year

#### Regimen 3

valacyclovir <18 years: not established; ≥18 years: 500 mg daily x 1 year (for ≤9 recurrences/year) or 1 gm daily x 1 year (for ≥10 recurrences/year)</p>

# DAILY SUPPRESSIVE REGIMENS FOR PERSONS WITH HIV Regimen 1

➤ acyclovir <18 years: not established; ≥18 years: 400-800 mg bid-tid

#### Regimen 2

► famciclovir <18 years: not established; ≥18 years: 500 mg bid

#### Regimen 3

> valacyclovir <18 years: not established; ≥18 years: 500 mg bid

### RECURRENT/EPISODIC REGIMENS FOR PERSONS WITH HIV

#### Regimen 1

*acyclovir* <18 years: not established; ≥18 years: 400 mg tid x 5-10 days

#### Regimen 2

Famciclovir <18 years: not established; ≥18 years: 500 mg bid x 5-10 days

#### Regimen 3

*valacyclovir* <18 years: not established; ≥18 years: 1 gm bid x 5-10 days

#### DRUG BRANDS AND DOSE FORMS

≥ acyclovir (B)(G)

Zovirax Cap: 200 mg; Tab: 400, 800 mg

Zovirax Oral Suspension Oral susp: 200 mg/5 ml (banana)

Zovirax Cream Crm: 5% (3, 15 gm); Oint: 5% (3, 15 gm)

► famciclovir (B)(G)

Famvir Tab: 125, 250, 500 mg

➤ valacyclovir (B)(G)

Valtrex Cplt: 500, 1,000 mg



### HERPES LABIALIS/HERPES FACIALIS (HERPES SIMPLEX VIRUS TYPE I, COLD SORE, FEVER BLISTER)

#### PRIMARY INFECTION

acyclovir (B)(G) <12 years: see page 541 for dose by weight table; ≥12 years: do not chew, crush, or swallow the buccal tab; apply within 1 hour of symptom onset and before appearance of lesion; apply a single buccal tab to the upper gum region on the affected side and hold in place for 30 seconds</p>

Sitavig Buccal tab: 50 mg

Valtrex Cplt: 500, 1,000 mg

#### SUPPRESSION THERAPY (FOR SIX OR MORE OUTBREAKS/YEAR)

acyclovir (B)(G) <2 years: not recommended; ≥2 years, <40 kg: 20 mg/kg 2-5 times/ day x 1 year; >2 years, >40 kg: 200 mg 2-5 times/day x 1 year; see page 541 for dose by weight table;

Zovirax Cap: 200 mg; Tab: 400, 800 mg

Zovirax Oral Suspension Oral susp: 200 mg/5 ml (banana)

#### **TOPICAL ANTIVIRAL THERAPY**

acyclovir (B)(G) <2 years: not recommended; ≥2 years: apply q 3 hours 6 times/day x 7 days Zovirax Cream Crm: 5% (3, 15 gm); Oint: 5% (3, 15 gm)

docosanol (B) <12 years: not recommended; ≥12 years: apply and gently rub in 5
 times daily until healed
</p>

Abreva (OTC) Crm: 10% (2 gm)

penciclovir (B) <12 years: not recommended; ≥12 years: apply q 2 hours while awake x 4 days

Denavir Crm: 1% (2 gm)

#### TOPICAL ANTIVIRAL/CORTICOSTEROID THERAPY

acyclovir/hydrocortisone (B)(G) <12 years: not recommended; ≥12 years: cream apply to affected area 5 x/day x 5 days
 Crm: 1% (2, 5 gm)
</p>



### **HERPES ZOSTER (SHINGLES)**

#### **ORAL ANTIVIRALS**

- Famciclovir (B) <18 years: not recommended; ≥18 years: 500 mg tid x 7 days Famvir Tab: 125, 250, 500 mg
- valacyclovir (B) <12 years: not recommended; ≥12 years: 1 gm tid x 7 days Valtrex Cplt: 500, 1,000 mg
- acyclovir (B)(G) <2 years: not recommended; ≥2 years, <40 kg: 20 mg/kg 5 x/day x 7-10 days; >2 years, >40 kg: 800 mg 5 x/day x 7-10 days; see page 541 for dose by weight table; ≥12 years: 800 mg 5 x/day x 7-10 days

Zovirax Cap: 200 mg; Tab: 400, 800 mg

Zovirax Oral Suspension Oral susp: 200 mg/5 ml (banana)

#### PROPHYLAXIS AGAINST SECONDARY INFECTION

Silver sulfadiazine (B)(G) <12 years: not established; ≥12 years: apply bid-qid</li>
 Silvadene Crm: 1% (20 gm tube; 20, 50, 85, 400, 1,000 gm jar)
 Comment: silver sulfadiazine is contradicted in sulfa allergy, late pregnancy, within the first 2 months after birth, premature infants.

#### ANALGESICS

- acetaminophen (B) see Fever page 136
- aspirin (D) see Fever page 137

Comment: aspirin-containing medications are contraindicated with history of allergic-type reaction to aspirin, children and adolescents with varicella or other viral illness, and 3rd trimester pregnancy.

► tramadol (C)(IV)(G)

**Comment**: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Rybix ODT <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; *CrCl* <30 *mL/min* or severe hepatic impairment: not recommended; *Cirrhosis*: max 50 mg q 12 hours *ODT*: 50 mg (mint) (phenylalanine)

Ryzolt <18 years: not recommended; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

Ultram <18 years: not recommended; ≥18 years: 50-100 mg q 4-6 hours prn; max 400 mg/day; *CrCl* <30 *mL/min*: max 100 mg q 12 hours; *Cirrhosis*: max 50 mg q 12 hours

*Tab*: 50\*mg

**Ultram ER** <18 years: not recommended;  $\geq$ 18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min: or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

► tramadol/acetaminophen (Č)(IV)(G) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 2 tabs q 4-6 hours; max 8 tabs/day; 5 days; CrCl <30 mL/min: max 2 tabs q 12 hours; max 4 tabs/day x 5 days

Ultracet Tab: tram 37.5/acet 325 mg

**Comment:** *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Other Oral Analgesics see Pain page 298 Postherpetic Neuralgia see page 338

#### SECONDARY INFECTION PROPHYLAXIS

Silver sulfadiazine (B)(G) <12 years: not established; ≥12 years: apply bid-qid</li>
 Silvadene Crm: 1% (20 gm tube; 20, 50, 85, 400, 1,000 gm jar)
 Comment: silver sulfadiazine is contradicted in sulfa allergy, late pregnancy, within the first 2 months after birth, premature infants.

### HICCUPS: INTRACTABLE

chlorpromazine (C) <6 months: not recommended; ≥6 months: 0.25 mg/lb orally q 4-6 hours prn or 0.5 mg/lb rectally q 6-8 hours prn; ≥12 years: 25-50 mg tid-qid</p>

Thorazine *Tab*: 10, 25, 50, 100, 200 mg; *Spansule*: 30, 75, 150 mg sust-rel; *Syr*: 10 mg/5 ml (4 oz; orange custard); *Oral conc*: 30 mg/ml (4 oz); 100 mg/ml (2, 8 oz); *Supp*: 25, 100 mg

### HIDRADENITIS SUPPURATIVA

#### ORAL ANTI-INFECTIVES

doxycycline (D)(G) <8 years: not recommended; ≥8 years, <100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided x 7-14 days; ≥8 years, ≥100 lb: 100 mg bid x 7-14 days; see page 561 for dose by weight table
</p>

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Dorvx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 7-14 days; ≥45 kg: 1-1.5 gm divided qid x 7-14 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7-14 days; may double dose with severe infection; max 100 mg/kg/day; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

minocycline (D)(G) <8 years: not recommended, ≥8 years: 100 mg bid x 7-14 days
 Dynacin Cap: 50, 100 mg
</p>

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

tetracycline (D)(G) <8 years: not recommended; ≥8 years, <100 lb: 25-50 mg/kg/day in 4 divided doses x 7-14 days; see page 574 for dose by weight table; ≥8 years, ≥100 lb: 250 mg qid or 500 mg tid x 7-14 days
</p>

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

#### TOPICAL ANTI-INFECTIVES

clindamycin (B)(G) apply bid x 7-14 days

Cleocin T Pad: 1% (60/pck; alcohol 50%); Lotn: 1% (60 ml); Gel: 1% (30, 60 gm); Soln w. applicator: 1% (30, 60 ml; alcohol 50%)



# HOOKWORM (UNCINARIASIS, CUTANEOUS LARVAE MIGRANS)

#### **ANTHELMINTICS**

**Comment**: Oral bioavailability of anthelmintics is enhanced when administered with a fatty meal (estimated fat content 40 g).

albendazole (C) take with a meal; may crush and mix with food; may repeat in 2-3 weeks if needed; <2 years: not recommended; 2-12 years: 400 mg x 3 days; >12 years: 400 mg bid x 5 days

Albenza Tab: 200 mg

> mebendazole (C) take with a meal; may crush and mix with food; may repeat in 3 weeks if needed; <2 years: not recommended; ≥2 years: 100 mg bid x 3 days</p>

Emverm Chew tab: 100 mg

Vermox (G) Chew tab: 100 mg

▶ pyrantel pamoate (C) take with a meal; may open capsule and sprinkle or mix with food; treat x 3 days; 11 mg/kg/dose; max 1 gm/dose; <12 lb: not recommended; 25-37 lb: 1/2 tsp/dose; 38-62 lb: 1 tsp/dose; 63-87 lb: 1 tsp/dose; 88-112 lb: 2 tsp/dose; 113-137 lb: 2 tsp/dose; 138-162 lb: 3 tsp/dose; 163-187 lb: 3 tsp/dose; >187 lb: 4 tsp/dose

Antiminth (OTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (60 ml)

Pin-X (ÔTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (30 ml)



# HUMAN IMMUNODEFICIENCY VIRUS (HIV) EXPOSURE, ANTIRETROVIRAL PEP/nPEP

Antiretroviral drug brand names and dose forms (see Anti-HIV Drugs page 511) Comment: Antiretroviral prophylactic treatment regimens for occupational HIV exposure (PEP) and non-occupational exposure (nPEP) are referenced from the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines, MMWR, and NIH available at: https://www.cdc.gov/hiv/pdf/programresources/cdc-hiv-npep-guidelines.pdf

In this section, the 2015 CDC-recommended highly active antiretroviral treatment (HAART) regimens are followed by a listing of the single and combination drugs with dosing regimens and dose forms.

Appendix S is an alphabetical listing of the HIV drugs and dose forms.

For more information on the management of HIV infection in adolescents and ≥18 years, see *Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents*: https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf

For specific dosing information in the management of HIV infection in children, see *Guidelines for Use of Antiretroviral Agents in Pediatric HIV Infection*: https://www.aidsinfo.nih.gov/contentfiles/lvguidelines/pediatricguidelines.pdf

Providers should consult, and/refer HIV-infected patients to, a specialist and/or specialty community services for age-appropriate dosing regimens and other specific pediatric considerations.

Initiation of PEP/nPEP with ART as soon as possible increases the likelihood of prophylactic benefit. Treatment regimens must be initiated ≥72 hours following exposure. A 28-day course of ART is recommended for persons with *substantial risk for HIV* exposure (i.e., exposure of vagina, rectum, eye, mouth, or other mucous membrane, non-intact skin, or percutaneous contact with blood, semen, vaginal secretions, breast milk, or any body fluid that is visibly contaminated with blood, when the source is known to be infected with HIV). ART is not recommended for persons with negligible risk for HIV exposure (i.e., exposure of vagina, rectum, eye, mouth, or other mucus membrane, intact or non-intact skin, or percutaneous contact with urine, nasal secretions, saliva, sweat, or tears, if not visibly contaminated with blood, regardless of the known or suspected HIV status of the source). There is no evidence indicating any specific antiretroviral medication, or combination of medications is optimal for suppressing local viral replication. There is no evidence to indicate that a 3-drug ART regimen is any more beneficial than a 2-drug regimen. When the source person is available for interview and testing, his or her history of retroviral medication use and most recent/ current viral load measurement should be considered when selecting an ART treatment regimen (e.g., to help avoid prescribing an antiretroviral medication to which the source virus is likely to be resistant). Register pregnant patients exposed to antiretroviral agents to the Antiretroviral Pregnancy Registry (APR) at 800-258-4263. The Centers for Disease Control and Prevention recommend that HIV-infected mothers not breastfeed their infants to avoid risking postnatal transmission of HIV infection.

#### REGIMENS

#### Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI)-Based Regimen

• efavirenz plus (lamivudine or emtricitabine) plus (zidovudine or tenofovir)

#### Protease Inhibitor (PI)-Based Regimens

- lopinavir/ritonavir (coformulated as Kaletra) plus (lamivudine or emtricitabine) plus zidovudine
- *darunavir/cobicistat* (coformulated as Prezcobix) <u>plus</u> other retroviral agents

#### ALTERNATIVE REGIMENS

#### **NNRTI-Based Regimen**

efavirenz plus (lamivudine or emtricitabine) plus (abacavir or didanosine or stavudine)

**Comment**: *efavirenz* should be avoided in pregnant females and females of childbearing potential.

#### **Protease Inhibitor-Based Regimens**

#### Regimen 1

atazanavir <u>plus</u> (lamivudine <u>or</u> emtricitabine) <u>plus</u> (zidovudine <u>or</u> stavudine <u>or</u> abacavir <u>or</u> didanosine) <u>or</u> (tenofovir <u>plus</u> ritonavir (100 mg/day)

#### Regimen 2

► fosamprenavir plus (lamivudine or emtricitabine) plus (zidovudine or stavudine) or (abacavir or tenofovir or didanosine)

#### Regimen 3

► fosamprenavir/ritonavir <u>plus</u> (lamivudine <u>or</u> emtricitabine) <u>plus</u> (zidovudine <u>or</u> stavudine <u>or</u> abacavir <u>or</u> tenofovir <u>or</u> didanosine)

#### Regimen 4

indinavir/ritonavir <u>plus</u> (lamivudine <u>or</u> emtricitabine) <u>plus</u> (zidovudine <u>or</u> stavudine <u>or</u> abacavir <u>or</u> tenofovir <u>or</u> didanosine)

Comment: Using ritonavir with indinavir may increase risk for renal adverse events.

#### Reaimen 5

lopinavir/ritonavir (coformulated as Kaletra) plus (lamivudine or emtricitabine) plus (stavudine or abacavir or tenofovir or didanosine)

#### Regimen 6

nelfinavir <u>plus</u> (lamivudine <u>or</u> emtricitabine) <u>plus</u> (zidovudine <u>or</u> stavudine <u>or</u> abacavir <u>or</u> tenofovir <u>or</u> didanosine)

#### Regimen 7

saquinavir/ritonavir plus (lamivudine or emtricitabine) plus (zidovudine or stavudine or abacavir or tenofovir or didanosine)

#### Triple Nucleoside Reverse Transcriptase Inhibitor (NRTI)-Based Regimen

abacavir plus lamivudine plus zidovudine

Comment: Triple NRTI therapy should be used only when an NNRTI-  $\underline{or}$  PI-based regimen cannot  $\underline{or}$  should not be used.

# BRAND NAMES, DOSING, AND DOSE FORMS: SINGLE AGENTS Integrase Strand Transfer Inhibitor (INSTI)

dolutegravir (C) <12 years, <40 kg: not established; ≥12 years, ≥40 kg: Treatmentnaive of treatment-experienced but INSTI-naive: 50 mg once daily; Treatment-naive
of treatment-experienced of and co-administered with efavirenz, FPV/r, TPV/r, of
rifampin: 50 mg bid; INSTI-experienced with certain INSTI-associated resistance
substitutions: 50 mg bid
</p>

Tivicay Tab: 10, 25, 50 mg

► raltegravir (as potassium) (C) <4 weeks: not recommended; ≥4 weeks, 3-11 kg [oral suspension] 3-<4 kg: 20 mg bid; 4-<6 kg: 30 mg bid; 6-<8 kg: 40 mg bid; 8-<11 kg: 60 mg bid; ≥11-<25 kg [oral suspension/chewable tab]; 6 mg/kg/dose bid; see mfr pkg insert for dose by weight table;≥25 kg and unable to swallow tablet use chewable tab; 25-<28 kg: 150 mg bid; 28-<40 kg: 200 mg bid; 240 kg: 300 mg bid; 6 years 25 kg, and able to swallow tablets use film-coat tab; 400 mg bid; take with concomitant rifampin 800 mg bid; swallow film-coated tablets whole; do not crush or chew

Isentress *Tab*: 400 mg film-coat; *Chew tab*: 25, 100\*mg (orange banana) (phenylalanine)

Isentress Oral Suspension *Oral susp*: 100 mg/pkt pwdr for oral susp (banana) Comment: Oral suspension, chewable tablets and film-coated *raltegravir* tablets are not bioequivalent. Max dose for chewable tablets is 300 mg twice daily. Max dose for film-coated tablets is 400 mg twice daily

#### Nucleoside Reverse Transcriptase Inhibitors (NRTIs)

abacavir sulfate (C)(G) < 3 months: not recommended; 3 months-16 years: [tablet/ oral solution] 16 mg/kg qd or 8 mg/kg bid; max 300 mg bid; >14 kg: see mfr pkg insert for tablet dosing by weight table; Mild hepatic impairment: use oral solution for titration

Ziagen (as sulfate) Tab: 300\*mg

Ziagen Oral Solution Oral soln: 20 mg/ml (240 ml) (strawberry-banana)(parabens, propylene glycol)

► didanosine (C)

Videx EC <20 kg: not recommended (use oral solution); 20-<25 kg: 200 mg; 25-<60 kg: 250 mg; ≥60 kg: 400 mg; CrCl 30-59 mL/min: <60 kg: 125 mg; ≥60 kg: 200 mg; CrCl 10-29 mL/min: 125 mg; CrCl <10 CrCl <10 CrCl <10 kg: 125 mg; CrCl <10 kg: 125 mg; take once daily on an empty stomach; swallow whole, do not crush or chew

Cap: 125, 200, 250, 400 mg ent-coat del-rel; Chew tab: 25, 50, 100, 150, 200 mg (mandarin orange) (buffered with calcium carbonate and magnesium hydroxide, phenylalanine)

Videx Pediatric Pwdr for Solution <2 weeks: not recommended; 2 weeks-8 months: 100 mg/m² bid; >8 months: 120 mg/m² bid; Renal impairment: consider reducing dose or increasing dosing interval; take on an empty stomach Pwdr for oral soln: 2, 4 gm (120, 240 ml)

Comment: didanosine is contraindicated with concomitant allopurinol or ribavirin.

→ emtricitabine (B) <3 months: 3 mg/kg oral soln once daily; 3 months-17 years, 6 mg/kg once daily; ≤33 kg: use oral soln, max 240 mg (24 ml); >33 kg: 200 mg cap once daily; max 240 mg/day; ≥18 years: 200 mg once daily; CrCl 30-49 mL/min: 200 mg q 48 hours; CrCl 5-29 mL/min: 200 mg q 72 hours; CrCl <15 mL/min or dialysis: 200 mg q 96 hours

Emtriva Cap: 200 mg

Emtriva Oral Solution Oral soln: 10 mg/ml (170 ml) (cotton candy)

lamivudine (C)(G) <3 months: not established; 3 months-16 years: 4 mg/kg oral soln or tab bid; [tab] 14-<20 kg: 150 mg once daily or 75 mg bid; ≥20-<25 kg: 225 mg once daily or 75 mg in the AM and 150 mg in the PM; ≥25 kg: 300 mg once daily or 150 mg bid; max 8 mg/kg once daily or 150 mg bid or 300 mg once daily; >16 years: CrCl ≥50 mL/min: 300 mg qd or 150 mg bid; CrCl >30-50 mL/min: 150 mg qd; CrCl 15-29: first dose 150 mg, then 100 mg once daily; CrCl 5-14 mL/min: first dose 150 mg, then 50 mg qd; CrCl <5 mL/min: first dose 50 mg, then 25 mg once daily; max 8 mg/kg once daily or 150 mg bid</p>

Epivir Tab: 150\*, 300 mg

Epivir Oral Solution *Oral soln*: 10 mg/ml (240 ml) (strawberry-banana) (sucrose 3 gm/15 ml)

Comment: With renal impairment reduce *lamivudine* dose <u>or</u> extend dosing interval.

stavudine (C)(G)birth-13 days: [tablet/oral solution] 0.5 mg/kg q 12 hours; >14 days, <30 kg: [tablet/oral solution] 1 mg/kg q 12 hours; ≥30-<60 kg: 30 mg q 12 hours; ≥60 kg: discontinue; After resolution, ≥60 kg: may restart at 20 mg q 12 hours; After resolution, ≤60 kg: any restart at 15 mg q 12 hours; if neuropathy returns: consider permanent discontinuation; CrCl 10-50 mL/min, ≥60 kg: 20 mg q 12 hours; CrCl 10-50 mL/min, ≥60 kg: 15 mg q 12 hours; Hemodialysis, ≥60 kg: 20 mg q 24
</p>

hours; *Hemodialysis*, ≤60 kg: 15 mg q 24 hours; administer at the same time of day; *Hemodialysis*: administer at the end of dialysis

Zerit Cap: 15, 20, 30, 40 mg

Zerit for Oral Solution Oral soln: 1 mg/ml pwdr for reconstitution (fruit) (dye-free) 

▶ tenofovir disoproxil fumarate (C) <2 years: not established; 2-12 years: 8 mg/kg once daily; >12 years, 35 kg; 300 mg once daily; mix oral pwdr with 2-4 oz soft food; max 300 mg once daily; CrCl 30-49 mL/min: max 300 mg q 48 hours; CrCl 10-29: max 300 mg q 72-96 hours; Hemodialysis: max 300 mg once every 7 days or after a total of 12 hours of dialysis; CrCl <10 mL/min: not recommended

Viread Tab: 150, 200, 250, 300 mg; Oral pwdr: 40 mg/g (60 gm w. dosing scoop)

≥ zidovudine (C)(G) Treatment of HIV-1 infection: 4-<9 kg: 24 mg/kg/day divided bid or tid; ≥9-30 kg: 18 mg/kg/day divided bid or tid; ≥30 kg: 600 mg/day divided bid or tid; Prevention of maternal-fetal neonatal transmission: <12 hours after birth until 6 weeks of age: [Solution] 2 mg/kg q 6 hours until 6 weeks-of-age; [IV] 1.5 mg/kg infused over 30 minutes q 6 hours until 6 weeks-of-age; max 200 mg q 8 hours; ESRD/dialysis: max 100 mg q 6-8 hours; Vertical transmission, severe anemia, or neutropenia: see mfr pkg insert

Retrovir Tablets *Tab*: 300 mg Retrovir Capsules *Cap*: 100 mg

Retrovir Syrup Syrup: 50 mg/5 ml (strawberry)

Retrovir IV Vial: 10 mg/ml after dilution (20 ml) (preservative-free)

#### Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)

delavirdine mesylate (C) <16 years: not established; ≥16 years: 400 mg (4 x 100 mg or 2 x 200 mg) tablets tid in combination with other antiretroviral agents</p>

Rescriptor Tab: 100, 200 mg

Comment: The 100 mg Rescriptor tablets may be dispersed in water prior to consumption. To prepare a dispersion, add four 100 mg Rescriptor tablets to at least 3 ounces of water, allow to stand for a few minutes, and then stir until a uniform dispersion occurs. The dispersion should be consumed promptly. The glass should be rinsed with water and the rinse swallowed to ensure the entire dose is consumed. The 200 mg tablets should be taken as intact tablets, because they are not readily dispersed in water.

▶ efavirenz (D) ≤3 months: not established; >3 months, ≤3.5 kg: [tablet/capsule] 3.5-<5 kg: 100 mg once daily; 5-<7.5 kg: 150 mg once daily; 7.5-<15 kg: 200 mg once daily; 15-<20 kg: 250 mg once daily; 20-<25 kg: 300 mg once daily; 25-<32.5 kg: 350 once daily; 32.5-<40 kg: 400 mg once daily; >40 kg: 600 mg once daily; max 600 mg once daily

Comment: For children who cannot swallow capsules, the capsule contents can be administered with a small amount of food (applesauce, grape jelly, yogurt) or 2 tsp room temperature infant formula using the capsule sprinkle method of administration. See mfr pkg insert for instructions. Tablets should not be crushed or chewed. Administer at bedtime to limit CNS effects. Consider pretreatment with antihistamine to minimize rash.

Sustiva Tab: 75, 150, 600, 800 mg; Cap: 50, 200 mg

etravirine (B) <3 years: not recommended; ≥3 years, >16 kg: 16-< 20 kg: 100 mg bid; 20-<25 kg: 125 mg bid; 25-<30 kg: 150 mg bid; ≥30 kg: 200 mg (1 x 200 mg tablet or 2 x 100 mg tablets) bid following a meal; max 200 mg bid; take following a meal</p>

Intelence Tab: 25\*, 100, 200 mg

nevirapine (B)(G) <6 years: not recommended; 6-<18 years: BSA 0.58-0.83 kg/m²: 200 mg once daily; BSA 0.84-1.16 kg/m²: 300 mg once daily; BSA ≥1.17 kg/m²: 400 mg once daily; max 400 mg once daily; ≥18 years: initially one 200 mg tablet of immediate-release Viramune once daily for the first 14 days in combination with other antiretroviral agents; then one 400 mg tablet of Viramune XR once daily Comment: Children must initiate therapy with immediate-release Viramune for the first 14 days; ≥15 days: [oral suspension/tablet]: 150 mg/m² once daily for 14 days, then 150 mg/m² bid. The 14-day lead-in period has been found to lessen the frequency of rash.</p>

**Viramune** *Tab*: 200\*mg

Viramune Oral Suspension Oral susp: 50 mg/5 ml (240 ml)

Viramune XR Tab: 100, 400 mg ext-rel

Edurant Tab: 25 mg

## Nucleoside and Non-Nucleoside Reverse Transcriptase Inhibitor (NRTI/NNRTI) Combinations

- Atripla (B) efavirenz/emtricitabine/tenofovir disoproxil fumarate <12 years: not recommended; ≥12 years, 40 kg: 1 tab once daily preferably at HS; take on an empty stomach; Concomitant rifabutin: >50 kg: take additional efavirenz 200 mg/day Tab: efa 600 mg/emtri 200 mg/teno dis fum 300 mg
- Complera (B) emtricitabine/tenofovir disoproxil fumarate/rilpivirine <12 years, <35 kg: not established; ≥12 years, ≥35 kg: 1 tab once daily; CrCl <50 mL/min: not recommended; Concomitant rifabutin: take additional ribavirin 25 mg qd
  Tab: emtri 200 mg/teno dis 300 mg/rilpiv 25 mg</p>

#### Protease Inhibitors (PIs)

\*\*Examavir\*\* (B) <3 months: not recommended; ≥3 mos, 5 kg: [oral powder] 5-<15 kg: 200 mg (4 packets) plus ritonavir 80 mg once daily; 15-<25 kg: 250 mg (5 packets) plus ritonavir 80 mg once daily; ≥25 kg, unable to swallow capsules: 300 mg (6 packets) plus ritonavir once daily; 6 yrs, <15 kg: [capsule] 15-<20 kg: 150 mg plus ritonavir 100 mg once daily; 20-<40 kg: 200 mg plus ritonavir 100 mg once daily; ≥40 kg: 300 mg plus ritonavir 100 mg once daily; [capsule] 15-<20 kg: 150 mg plus ritonavir 100 mg once daily; 20-<40 kg: 200 mg plus ritonavir 100 mg once daily; ≥40 kg: 300 mg plus ritonavir 100 mg once daily; max dose 400 mg once daily; Treatment-naïve, ≥40 kg: Recommended regimen: 300 mg plus ritonavir 100 mg once daily; In combination with efavirenz: 400 mg plus ritonavir 100 mg once daily; Treatment-experienced. ≥40 kg: Recommended regimen: 300 mg plus ritonavir 100 mg once daily; In combination with both an H2-blocker or PPI and tenofovir: 400 mg plus ritonavir 100 mg once daily; take with food
</p>

Reyataz Cap: 100, 150, 200, 300 mg;  $Oral \ pwdr$ : 50 mg/pkt (30/carton) (phenylalanine)

**Comment**: Administration of *atazanavir* with *rotinavir* is preferred. Dose for treatment-naïve children ≥13 years-of-age and ≥40 kg unable to tolerate *rotinavir*, administer 400 mg once daily. See mfr pkg insert for special dosing considerations when combining *atazanavir* with other retrovirals.

darunavir (C)(G) <3 years: nor recommended; ≥3 years, 10 kg [oral solution/tablet/capsule] Treatment-naïve or experienced without darunavir-associated substitutions: 10-<15 kg: 35 mg/kg once daily plus ritonavir 7 mg/kg once daily; 15-<30 kg: 600 mg plus ritonavir 100 mg once daily; 30-<40 kg: 675 mg plus ritonavir 100 mg once daily; ≥40 kg: 800 mg plus ritonavir 100 mg once daily; Treatment-experienced with ≥1 darunavir-associated substitution(s): 10-15 kg: 20 mg/kg bid plus ritonavir 3 mg/kg bid; 15-<30 kg: 375 mg plus ritonavir 48 mg bid; 30-<40 kg: 450 mg plus ritonavir 100 mg bid; ≥40 kg: 600 mg plus ritonavir 100 mg bid
</p>

Prezista Tab: 75, 150, 600, 800 mg film-coat

Prezista Oral Suspension Susp: 100 mg/ml (strawberry cream)

Comment: Prezista is FDA approved for treatment of HIV-1-infected pregnant females and for the treatment of children >3 years-of-age in combination with *ritonavir* and other antiretrovirals.

Comment: Prezista is FDA approved for treatment of HIV-1-infected pregnant females and for the treatment of children >3 years-of-age in combination with *ritonavir* and other antiretrovirals.

Fosamprenavir (C)(G) < 4 weeks: not recommended; Protease inhibitor-naïve, ≥ 4 weeks-18 years or protease inhibitor-experienced: ≥ 6 months, < 11 kg: 45 mg/kg plus ritonavir 7 mg/kg bid; 11-<15 kg: 30 mg/kg plus ritonavir 3 mg/kg bid; 15 kg-< 20 kg: 23 mg/kg plus ritonavir 3 mg/kg bid; 220 kg: 18 mg/kg plus ritonavir 3 mg/kg bid; Protease inhibitor-naïve, ≥ 2 years: 30 mg/kg bid without ritonavir: max dose 700 mg plus ritonavir 100 mg bid; Max dosing: Treatment-naïve: 1,400 mg bid or 1,400 mg once daily plus ritonavir 200 mg once daily or 1,400 mg once daily plus ritonavir 100 mg bid plus ritonavir 100 mg bid; Protease inhibitor-experienced: 700 mg bid plus ritonavir 100 mg bid
</p>

Lexiva: Tab: 700 mg film-coat

Lexiva Oral Suspension Oral susp: 50 mg/ml (225 ml) (grape-bubble gum-peppermint)

Comment: fosamprenavir 1 ml is equivalent to approximately 43 mg of amprenavir 1 ml.

indinavir sulfate (C) <18 years: not established (3-18 years, doses of 500 mg/m² every 8 hours have been used; see mfr pkg insert); ≥18 years: 800 mg q 8 hours; Concomitant rifabutin: 1 gm q 8 hours and reduce rifabutin dose by half; Hepatic insufficiency or concomitant ketoconazole, itraconazole, or delavirdine: 600 mg q 8 hours; take with water on an empty stomach or with a light meal

Crixivan Cap: 100, 200, 333, 400 mg

nelfinavir mesylate (B) <2 years: not established; 2-13 years: 45-55 mg/kg bid or 25-35 mg/kg tid; take with a meal; max 2,500 mg/day; ≥13 years: 1250 mg (5 x 250 mg tablets or 2 x 625 mg tablets) bid or 750 mg (3 x 250 mg tablets) tid; take with a meal; may dissolve tablets in a small amount of water; max 2500 mg/day

Viracept Tab: 250, 625 mg

Viracept Oral Powder *Oral pwdr:* 50 mg/g (144 gm) (phenylalanine) Comment: The 250 mg Viracept tablets are interchangeable with oral powder, the 625 mg tablets are not.

raltegravir(as potassium)(B) <4 weeks, <3 kg: not recommended; ≥4 weeks, 3-11 kg: [oral suspension] 3-<4 kg: 20 mg bid; 4-<6 kg: 30 mg bid; 6-<8 kg: 40 mg bid; 8-<11 kg: 60 mg bid; ≥11-<25 kg: [oral suspension/chewable tablet] 6 mg/kg/dose bid; see mfr pkg insert for dosage by weight;≥25 kg and unable to swallow tablet: [chewable tablet]25-<28 kg: 150 mg bid; 28-<40 kg: 200 mg bid; ≥40 kg: 300 mg bid; ≥6 years, ≥25 kg, able to swallow tablets: 400 mg film-coat tablet bid</p>

Comment: Oral suspension, chewable tablets, and film-coated tablets are not bioequivalent. Chewable tablet max dose 300 mg bid. Film-coated tablets max dose 400 mg bid. Oral suspension max dose 100 mg bid.

**Isentress** *Tab*: 400 mg film-coat; *Chew tab*: 25, 100\*mg (orange-banana) (phenylalanine)

Isentress Oral Suspension *Oral susp*: 100 mg/pkt pwdr for oral susp (banana)

► ritonavir (B) <1 month: not recommended; ≥1 month: 350-400 mg/m² bid; initiate at 250 mg/m² bid and titrate upward every 2-3 days by 50 mg/m² bid; max dose 600 mg bid

Comment: Lower doses of *ritonavir* have been used to boost other protease inhibitors but the *ritonavir* doses used for boosting have not been specifically approved in children.

Norvir Tab: 100 mg film-coat; Gel cap: 100 mg (alcohol)

Norvir Oral Solution *Oral soln:* 80 mg/ml, 600 mg/7.5 ml (8 oz) (peppermint-caramel) (alcohol)

Comment: Norvir tablets should be swallowed whole. Take Norvir with meals. Patients may improve the taste of Norvir Oral Solution by mixing with chocolate milk, Ensure, or Advera within one hour of dosing. Dose reduction of Norvir is necessary when used with other protease inhibitors (atazanavir, darunavir, fosamprenavir, saquinavir, and tipranavir). Patients who take the 600 mg gel cap bid may experience more gastrointestinal side effects such as nausea, vomiting, abdominal pain, or diarrhea when switching from the gel cap to the tablet because of greater maximum plasma concentration (Cmax) achieved with the tablet. These adverse events (gastrointestinal or paresthesias) may diminish as treatment is continued.

Saquinavir mesylate (B) <16 years: not established; ≥16 years: 1 gm bid plus ritonavir 100 mg bid (take both at the same time); Treatment-naïve or switching from a delavirdine- or rilpivirine-containing regimen: initially 500 mg bid x 7 days, then increase to 1 gm bid plus ritonavir 100 mg bid; take within 2 hours after a meal</p>

Fortovase Tab/Cap: 200 mg

Invirase Tab: 500 mg; Cap: 200 mg

► tipranavir (C) <2 years: not recommended; 2-18 yrs: [capsule/oral solution] 14 mg/kg plus ritonavir 6 mg/kg bid or 375 mg/m² plus ritonavir 150 mg/m² bid; max 500 mg plus ritonavir 200 mg bid
</p>

Aptivus Gel cap: 250 mg (alcohol)

**Aptivus Oral Solution** *Oral soln*: 100 mg/ml (buttermint-butter toffee) (Vit E 116 IU/ml)

#### FUSION INHIBITORS—CCR5 CORECEPTOR ANTAGONISTS

enfuvirtide (B) <6 years: not established; 6-16 years: administer 2 mg/kg SC bid; max 90 mg SC bid; rotate injection sites</p>

Fuzeon Vial: 90 mg/ml pwdr for SC inj after reconstitution (1 ml, 60 vials/kit) (preservative-free)

maraviroc (B) <16 years: not established; ≥16 years: must be administered concomitant with other retrovirals; Concomitant potent CYP3A inhibitors (with αr without a potent CYP3A inducer) including protease inhibitors (except tipranavir/ritonavir), delavirdine, ketoconazole, itraconazole, clarithromycin, other potent CYP3A inhibitors (e.g., nefazodone, telithromycin): CrCl ≥30 mL/min: 150 mg bid; CrCl <30 mL/min, dialysis: not recommended; Potent CYP3A inducers (without a potent CYP3A)
</p>

inhibitor) including efavirenz, rifampin, etravirine, carbamazepine, phenobarbital, and phenytoin: 300 mg bid; CrCl ≥30 mL/min: 600 mg bid; <30 mL/min: not recommended; other concomitant agents, including tipranavir/ritonavir, nevirapine, raltegravir, all NRTIs, and enfuvirtide: 300 mg bid

Selzentry Tab: 150, 300 mg film-coat

#### BRAND NAMES, DOSING, AND DOSE FORMS: COMBINATION AGENTS

Atripla (B) efavirenz/emtricitabine/tenofovir disoproxil fumarate <12 years: not established; ≥12 years, ≥40 kg: 1 tablet once daily on an empty stomach; bedtime dosing may improve the tolerability of nervous system symptoms; CrCl <50 mL/min: not recommended</p>

Tab: efa 600 mg/emtri 200 mg/teno dis fum 300 mg film-coat

Combivir (C)(G) lamivudine/zidovudine <12 years: not recommended; ≥12 years, ≥30 kg: 1 tablet bid with food</p>

Tab: lami 150 mg/zido 300 mg

Complera (B) emtricitabine/tenofovir disoproxil fumarate/rilpivirine <12 years, <40 kg: not recommended; ≥12 years, ≥40 kg: 1 tablet once daily; CrCl <50 mL/ min: not recommended

Tab: emtri 200 mg/teno dis 300 mg/rilpiv 25 mg

Descovy (D) emtricitabine/tenofovir alafenamide <12 years, <35 kg: not recommended; ≥12 years, ≥35 kg: 1 tablet once daily with or without food; CrCl <30 mL/min: not recommended</p>

Tab: emtri 200 mg/teno ala 25 mg

Comment: Patients with HIV-1 should be tested for the presence of chronic hepatitis B virus (HBV) before initiating antiretroviral therapy. **Descovy** is not approved for the treatment of chronic HBV infection, and the safety and efficacy of **Descovy** have not been established in patients co-infected with HIV-1 and HBV.

Epzicom (B) abacavir sulfate/lamivudine <25 kg: use individual components; ≥25 kg: one tablet once daily; Mild hepatic impairment or CrCl <50 mL/min: not recommended

Tab: aba 600 mg/lami 300 mg

Evotaz (B) atazanavir/cobicistat <18 years: not established; ≥18 years: 1 tab once daily

Tab: ataz 600 mg/cobi 300 mg

Genvoya (B) elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide <12 years: not established; ≥12 years, ≥35 kg: 1 tab once daily; Severe hepatic impairment or CrCl <30 mL/min: not recommended; take with food</p>

Tab: elvi 150 mg/cobi 150 mg/emtri 200 mg/teno 10 mg

▶ Kaletra, Kaletra Oral Solution(C)(G) lopinavir/ritonavir dose calculation is based on the lopinavir component; <14 days: not recommended; 14 days-6 months: 16 mg/kg bid; ≥6 months-12 years: [tablet/capsule/solution] 7-<15 kg: 12 mg/kg bid (13 mg/kg plus nevirapine); 15-40 kg: 10 mg/kg bid (11 mg/kg plus nevirapine), >40 kg, >12 years: lopinavir 400 mg bid (533 mg plus nevirapine); max lopinavir 400 mg bid for patients who are not receiving nevirapine or efavirenz; Kaletra should not be used in combination with NNRTIs in children <6 months-of-age; see mfr pkg insert for BSA-based dosing; swallow whole, do not crush or chew; take with or without food</p>

Tab: Kaletra 100/25 lopin 100 mg/riton 25 mg

Kaletra 200/50 lopin 200 mg/riton 50 mg Oral soln: lopin 80 mg/riton 20 mg per ml, lopin 400 mg/riton 500 mg per 5 ml (160 ml) (cotton candy) (alcohol 42.4%)

Defsey (D) emtricitabine/rilpivirine/tenofovir alafenamide <12 years, <35 kg: not established; ≥12 years: 1 tab once daily with food; CrCl <30 mL/min: not recommended

Tab: emtri 200 mg/rilpi 25 mg/teno alafen 25 mg

Prezcobix (C) darunavir/cobicistat <18 years: not recommended; ≥18 years: 1 tab once daily; Treatment-naïve and treatment-experienced with no darunavir resistance-associated substitution: 800 mg once daily plus ritonavir 100 mg once daily; Treatment-experienced with at least one darunavir resistance associated substitution: 600 mg bid plus ritonavir 100 mg bid; take with food; CrCl <70 mL/min: not recommended

Tab: darun 800 mg/cobi 150 mg

➤ Stribild (B)(G) elvitegravir/cobicistat/emtricitabine/tenofovir disoproxil fumarate <18 years: not established; ≥18 years: 1 tab once daily; CrCl <70 mL/min: not recommended; if CrCl declines to <50 mL/min during treatment: discontinue; Severe hepatic impairment: not recommended

Tab: elvi 150 mg/cobi 150 mg/emtri 200 mg/teno dis fum 300 mg

► Triumeq (C)(G) abacavir sulfate/dolutegravir/lamivudine <18 years: not established; ≥18 years: 1 tab once daily</p>

Tab: aba 600 mg/dolu 50 mg/lami 300 mg

► Trizivir (C)(G) abacavir sulfate/lamivudine/zidovudine <40 kg: not recommended; ≥40 kg: 1 tab bid

Tab: aba 300 mg/lami 150 mg/zido 300 mg

➤ Truvada (B) emtricitabine/tenofovir disoproxil fumarate <17 kg: not established; 17-<22 kg: 100/150 once daily; 22-<28 kg: 133/200 once daily; 28-35 kg: 167/250 once daily; ≥35 kg: 200/300 once daily

Tab: Truvada 100/150 emt 100 mg/teno 150 mg
Truvada 133/200 emt 133 mg/teno 200 mg
Truvada 167/250 emt 167 mg/teno 250 mg
Truvada 200/300 emt 200 mg/teno 300 mg

Comment: Truvada is indicated for treatment of HIV-1 infection and pre-exposure prophylaxis (PrEP) to reduce the risk of sexually acquired HIV-1 in high-risk patients ≥18 years-of-age in combination with safe sex practices.



### **HUMAN PAPILLOMAVIRUS (HPV, VENEREAL WART)**

#### **PROPHYLAXIS**

Comment: Administer IM in deltoid. Administer a 3-dose series; 1st dose females (10-25 years-of-age) and males (9-15 years-of-age); 2nd dose: 1-2 months after first dose; 3rd dose: 6 months after first dose. HPV vaccination is indicated for the prevention of cervical, vulvar, vaginal, and anal cancers. Register pregnant patients exposed to Gardasil by calling 800-986-8999.

bivalent human papillomavirus types 16 and 18 vaccine, aluminum adsorbed (B) <10 years: not applicable; ≥10 years: administer in the deltoid; 1st dose 0.5 ml IM on elected date; then, 2nd dose 0.5 ml IM 1 month later; then, 3rd dose 0.5 ml IM 6 months after the first dose (5 months after 2nd dose)</p>

Cervarix

*Vial*: susp for IM inj (single dose; prefilled syringe) (preservative-free)

Gardasil

*Vial*: susp for IM inj (single dose; prefilled syringe w. needles <u>or</u> tip caps) (preservative-free)

Padarivalent human papillomavirus types 6, 11, 16, 18, 31, 33, 45, 52, and 58 vaccine, recombinant, aluminum adsorbed (B) <9 years: not applicable; 9-26 years-of-age: administer in the deltoid or thigh; 1st dose 0.5 ml IM on elected date; then, 2nd dose 0.5 ml IM 2 months later; then, 3rd dose 0.5 ml IM 6 months after the 1st dose (4 months after 2nd dose)
</p>

#### Gardasil 9

*Vial*: susp for IM inj (0.5 ml single dose; prefilled syringe w. needles <u>or</u> tip caps) (preservative-free)

#### **TREATMENT**

see Wart: Venereal page 449

### HYPERHIDROSIS (PERSPIRATION, EXCESSIVE)

aluminum chloride (NE) 20% solution apply q HS; wash treated area the following morning; after 1-2 treatments, may reduce frequency to 1-2 times/week Drysol Soln: 35, 60 ml (alcohol 93%) cont-rel

Comment: Apply to clean dry skin (e.g., underarms). Do not apply to broken, irritated, or recently shaved skin.

### HYPERHOMOCYSTEINEMIA

Comment: Elevated homocysteine is associated with cognitive impairment, vascular dementia, and dementia of the Alzheimer's type.

#### HOMOCYSTEINE-LOWERING NUTRITIONAL SUPPLEMENTS

▶ L-methylfolate calcium (as metafolin)/pyridoxyl 5-phosphate/methyl-cobalamin (NE) <12 years: not recommended; ≥12 years: take 1 cap daily</p>

Metanx Cap: metafo 3 mg/pyrid 35 mg/methyl 2 mg (gluten-free, yeast-free, lactose-free)

Comment: Metanx is indicated as adjunct treatment of endothelial dysfunction and/or hyperhomocysteinemia in patients who have lower extremity ulceration.

► L-methylfolate calcium (as metafolin)/methylcobalamin/N-acetylcysteine (NE) <12 years: not recommended; ≥12 years: take 1 cap daily

Cerefolin Cap: metafo 5.6 mg/methyl 2 mg/N-ace 600 mg (gluten-free, yeast-free, lactose-free)

Comment: Cerefolin is indicated in the dietary management of patients treated for early memory loss, with emphasis on those at risk for neurovascular oxidative stress, hyperhomocysteinemia, mild to moderate cognitive impairment with or without vitamin B<sub>12</sub> deficiency, vascular dementia, or Alzheimer's disease.

### **HYPERKALEMIA (POTASSIUM EXCESS)**

#### HYPERKALEMIA CATION EXCHANGE RESINS

Comment: Normal serum K<sup>+</sup> range is approximately 3.5-5.5 mEq/L. Hyperkalemia is associated with cardiac dysrhythmias and metabolic acidosis. Risk factors include kidney disease, heart failure, and drugs that inhibit the renin-angiotensin-aldosterone system (RAAS) including ACEIs, ARBs, direct renin inhibitors, and aldosterone antagonists. Cation exchange resins are not for emergency treatment of life-threatening hyperkalemia, severe constipation, bowel obstruction or impaction. May cause GI irritability, ulceration, necrosis, sodium retention, hypocalcemia, hypomagnesemia, fecal impaction, ischemic colitis. Avoid non-absorbable cation-donating antacids and laxatives (e.g., *magnesium hydroxide*, *aluminum hydroxide*). Concomitant sorbitol should be avoided because it may cause intestinal necrosis.

Patiromer sorbitex calcium (B) <18 years: not established; ≥18 years: initially 8.4 gm once daily; adjust dosage as prescribed based on potassium concentration and target range; may increase dosage at 1-week (or longer) intervals in increments of 8.4 gm; max dose 25.2 gm once daily; prepare immediately prior to administration; do not take in dry form; administer with food; measure 1/3 cup of water and pour half into a glass; then add Veltassa and stir; add the remaining water and stir well; the powder will not dissolve and the mixture will look cloudy; add more water as needed for desired consistency; do not heat or mix with heated food or fluids

**Veltassa** *Pkt*: 8, 4, 16.8, 25.2 gm pwdr for oral susp, 30 single-use pkts/carton **Comment**: Take **Veltassa** at least 3 hours before or 3 hours after any other medicine taken by mouth. Store packets in the refrigerator. It stored at room temperature, product must be used within 3 months.

Sodium polystyrene sulfonate (C)(G) Use 1 gm/1 mEq of K<sup>+</sup> as basis of calculation; see mfr literature

Kayexalate Susp: 15 gm 1-4 times daily; Rectal Enema: 30-50 gm in 100 ml every 6 hours

### **HYPERPARATHYROIDISM**

calcifediol (C)(G) <18 years: not established; ≥18 years: 1 cap daily
 Rayaldee Cap: 30 mcg ext-rel
</p>

Comment: Rayaldee is indicated for the prevention and treatment of secondary hyperparathyroidism associated with chronic kidney disease (CKD), stage 3 or 4 and serum total 25-hydroxyvitamin D levels <30 mg/mL.

▶ paricalcitol (C)(G) <18 years: not established; ≥18 years: administer 0.04-1 mcg/kg (2.8-7 mcg) IV bolus, during dialysis, no more than every other day; may be increased by 2-4 mcg every 2-4 weeks; monitor serum calcium and phosphorus during dose adjustment periods; if Ca x P >75, immediately reduce dose or discontinue until these levels normalize; discard unused portion of single-use vials immediately

Zemplar Vial: 2, 5 mcg/ml soln for inj

**Comment:** Zemplar is indicated for the prevention and treatment of secondary hyperparathyroidism associated with chronic kidney disease, stage 5.



### **HYPERPHOSPHATEMIA**

#### PHOSPHATE BINDERS

Comment: Monitor for development of hypercalcemia. Normal serum  $PO_4^-$  is 2.5-4.5 mg/dL and normal serum calcium is 8.5-10.5 mg/dL.

Example Calcium acetate (C)(G) <12 years: not established; ≥12 years: initially 2 tabs or caps with each meal; then, titrate gradually to keep serum phosphate at <6 mg/dL; usual maintenance is 3-4 tabs or caps with each meal

PhosLo Tab: 667 mg; Cap: 667 mg

lanthanum carbonate (C) <12 years: not established; ≥12 years: initially 750 mg to
 1.5 gm per day in divided doses; take with meals; titrate at 2-3-week intervals in
 increments of 750 mg/day based on serum phosphate; usual range 1.5-3 gm/day;
 usual max 3,750 mg/day
</p>

Fosrenol Chew tab: 250, 500, 750 mg; 1 g

Sevelamer (C) <12 years: not recommended; ≥12 years: for patients not taking a phosphate binder, take tid with meals; swallow whole; titrate by 1 tab per meal at 1 week intervals to keep serum phosphorus 3.5-5.5 mg/dL; switching from calcium acetate to sevelamer, see mfr pkg insert. Serum phosphorus >5.5 to >7.5 mg/dL: 800 mg tid; Serum phosphorus 7.5-9: 1.2-1.6 gm tid

Renagel *Tab*: 400, 800 mg Renvela *Tab*: 800 mg



#### **HYPERPIGMENTATION**

Comment: Depigmenting agents may be used for hyperpigmented skin conditions including chloasma, melasma, freckles, senile lentigines. Limit treatments to small areas at one time. Sunscreen ≥30 SPF recommended.

▶ hydroquinone (C)(G) apply sparingly to affected area and rub in bid

Lustra Crm: 4% (1, 2 oz) (sulfites)

Lustra AF Crm: 4% (1, 2 oz) (sunscreen, sulfites)

> monobenzone (C) apply sparingly to affected area and rub in bid-tid; depigmentation occurs in 1-4 months

Benoquin Crm: 20% (1.25 oz)

► tazarotene (X)(G) <12 years: not recommended; ≥12 years: apply daily at HS

Avage Cream Crm: 0.1% (30 gm)

Tazorac Cream Crm: 0.05, 0.1% (15, 30, 60 gm)

Tazorac Gel Gel: 0.05, 0.1% (30, 100 gm)

► tretinoin (C) <12 years: not recommended; ≥12 years: apply daily at HS

Avita Crm/Gel: 0.025% (20, 45 gm)

Renova Crm: 0.02% (40 gm); 0.05% (40, 60 gm)

Retin-A Cream Crm: 0.025, 0.05, 0.1% (20, 45 gm)

Retin-A Gel Gel: 0.01, 0.025% (15, 45 gm) (alcohol 90%)

**Retin-A Liquid** *Liq:* 0.05% (28 ml) (alcohol 55%)

Retin-A Micro Microspheres: 0.04, 0.1% (20, 45 gm)

#### **COMBINATION AGENTS**

hydroquinone/fluocinolone/tretinoin (C) <12 years: not recommended; ≥12 years: apply sparingly to affected area and rub in daily at HS</p>

Tri-Luma Crm: hydro 4%/fluo 0.01%/tretin 0.05% (30 gm) (parabens, sulfites)

- hydroquinone/padimate O/oxybenzone/octyl methoxycinnamate (C) <12 years: not recommended; ≥12 years: apply sparingly to affected area and rub in bid Glyquin Crm: 4% (1 oz jar)</p>
- by hydroquinone/ethyl dihydroxypropyl PABA/dioxybenzone/oxybenzone (C) <12 years: not recommended; ≥12 years: apply sparingly to affected area and rub in bid; max 2 months</p>

Solaquin Crm: hydro 2%/PABA 5%/dioxy 3%/oxy 2% (1 oz) (sulfites)

- hydroquinone/padimate/dioxybenzone/oxybenzone (C) <12 years: not recommended; ≥12 years: apply sparingly to affected area and rub in bid; max 2 months Solaquin Forte Crm: hydro 4%/pad 0.5%/dioxy 3%/oxy 2% (1 oz) (sunscreen, sulfites)</p>
- bydroquinone/padimate/dioxybenzone (C) <12 years: not recommended; ≥12 years: apply sparingly to affected area and rub in bid; max 2 months</p>
  Solaquin Forte Gel: hydro 4%/pad 0.5%/dioxy 3% (1 oz) (alcohol, sulfites)

### HYPERPROLACTINEMIA

#### DOPAMINE RECEPTOR AGONIST

Cabergoline Tab: 0.5 mg

Comment: Cabergoline is indicated to treat hyperprolactinemia disorders due to idiopathic <u>or</u> pituitary adenoma.

### HYPERTENSION: PRIMARY, ESSENTIAL

see JNC-8 Recommendations page 461

#### BETA-BLOCKERS: CARDIOSELECTIVE

**Comment**: Cardioselective beta-blockers are less likely to cause bronchospasm, peripheral vasoconstriction, <u>or</u> hypoglycemia than non-cardioselective beta-blockers.

- acebutolol (B)(G) <12 years: not recommended; ≥12 years: initially 400 mg in 1-2 divided doses; usual range 200-800 mg/day; max 1.2 gm/day in 2 divided doses Sectral Cap: 200, 400 mg</p>
- atenolol (D)(G) <12 years: not recommended; ≥12 years: initially 50 mg daily; may increase after 1-2 weeks to 100 mg daily; max 100 mg/day
  </p>

Tenormin Tab: 25, 50, 100 mg

- betaxolol (C) <12 years: not recommended; ≥12 years: initially 10 mg daily; may increase to 20 mg/day after 7-14 days; usual max 20 mg/day Kerlone Tab: 10\*, 20 mg
- bisoprolol (C) <12 years: not recommended; ≥12 years: 5 mg daily; max 20 mg daily Zebeta Tab: 5\*, 10 mg

metoprolol succinate (C)(G) <12 years: not recommended; ≥12 years: initially
 12.5-25 mg in a single dose daily; increase weekly if needed; reduce if symptomatic
 bradycardia occurs; max 400 mg/day
</p>

Toprol-XL Tab: 25\*, 50\*, 100\*, 200\*mg ext-rel

metoprolol tartrate (C)(G) <12 years: not recommended; ≥12 years: initially 25-50 mg bid; increase weekly if needed; max 400 mg/day</p>

Lopressor Tab: 25, 37.5, 50, 75, 100 mg

nebivolol (C)(G) <12 years: not recommended; ≥12 years: initially 5 mg daily; may increase at 2 week intervals; max 40 mg/day

 Bystolic Tab: 2.5, 5, 10, 20 mg
</p>

#### RETA-BLOCKERS: NON-CARDIOSELECTIVE

Comment: Non-cardioselective beta-blockers are more likely to cause bronchospasm, peripheral vasoconstriction, and/or hypoglycemia than cardioselective beta-blockers.

nadolol (C)(G) <12 years: not recommended; ≥12 years: initially 40 mg daily; usual maintenance 40-80 mg daily; max 320 mg/day</p>
Corgard Tab: 20\*, 40\*, 80\*, 120\*, 160\*mg

penbutolol (C) <12 years: not recommended; ≥12 years: 20 mg once daily Levatol Tab: 20\*mg

pindolol (B)(G) <12 years: not recommended; ≥12 years: initially 5 mg bid; may increase after 3-4 weeks in 10 mg increments; max 60 mg/day</p>

Pindolol Tab: 5, 10 mg Visken Tab: 5, 10 mg

▶ propranolol (C)(G)

Inderal <12 years: initially 1 mg/kg/day; usual range 2-4 mg/kg/day in 2 divided doses; max 16 mg/kg/day; ≥12 years: initially 40 mg bid; usual maintenance 120-240 mg/day; max 640 mg/day

Tab: 10\*, 20\*, 40\*, 60\*, 80\*mg

Inderal LA <12 years: not recommended; ≥12 years: initially 80 mg daily in a single dose; increase q 3-7 days; usual range 120-160 mg/day; max 320 mg/day in a single dose

Cap: 60, 80, 120, 160 mg sust-rel

InnoPran XL <12 years: not recommended; ≥12 years: initially 80 mg q HS; max 120 mg/day

Cap: 80, 120 mg ext-rel

timolol (C)(G) <12 years: not recommended; ≥12 years: initially 10 mg bid; increase weekly if needed; usual maintenance 20-40 mg/day; max 60 mg/day in 2 divided doses Blocadren Tab: 5, 10\*, 20\*mg
</p>

### BETA-BLOCKER: (NON-CARDIOSELECTIVE)/ALPHA-1 BLOCKER COMBINATIONS

carvedilol (C)

Coreg <1 years: not recommended; ≥1 years: initially 6.25 mg bid; may increase at 1-2-week intervals to 12.5 mg bid; max 25 mg bid

*Tab*: 3.125, 6.25, 12.5, 25 mg

Coreg CR <18 years: not recommended; ≥18 years: initially 20 mg once daily for 2 weeks; may increase at 1-2-week intervals; max 80 mg once daily *Tab*: 10, 20, 40, 80 mg cont-rel

carteolol (C) <12 years: not recommended; ≥12 years: initially 2.5 mg daily, gradually increase to 5 or 10 mg daily; usual maintenance 2.5-5 mg daily</p>

Cartrol

Tab: 2.5, 5 mg

labetalol (C)(G) <12 years: not recommended; ≥12 years: initially 100 mg bid; increase after 2-3 days if needed; usual maintenance 200-400 mg bid; max 2.4 gm/day</p>

Normodyne *Tab*: 100\*, 200\*, 300 mg Trandate *Tab*: 100\*, 200\*, 300\*mg

#### DIURETICS

#### **Thiazide Diuretics**

- chlorthalidone (B)(G) <12 years: not established; ≥12 years: initially 15 mg daily; may increase to 30 mg once daily based on clinical response; max 45-60 mg/day Chlorthalidone Tab: 25, 50 mg Thalitone Tab: 15 mg</p>
- chlorothiazide (B)(G) <6 months: up to 15 mg/lb/day in 2 divided doses; ≥6 months-<12 years: 10 mg/lb/day in 2 divided doses; ≥12 0.5-1 gm/day in a single or divided doses; max 2 gm/day</p>

Diuril Tab: 250\*, 500\*mg; Oral susp: 250 mg/5 ml (237 ml)

hvdrochlorothiazide (B)(G)

Esidrix <12 years: not recommended; ≥12 years: 25 mg once daily; usual max 100 mg/day 25-100 mg once daily

Tab: 25, 50, 100 mg

Hydrochlorothiazide <12 years: not recommended; ≥12 years: 12.5 mg once daily; usual max 50 mg/day

Tab: 25\*, 50\*mg

Microzide <12 years: not recommended; ≥12 years: 12.5 mg once daily; usual max 50 mg/day

Cap: 12.5 mg

polythiazide (C) <12 years: not recommended; ≥12 years: 2-4 mg once daily Renese Tab: 1, 2, 4 mg

#### **Potassium-Sparing Diuretics**

amiloride (B)(C) <12 years: not recommended; ≥12 years: initially 5 mg; may increase to 10 mg; max 20 mg
</p>

Midamor Tab: 5 mg

> spironolactone (D)(G) <12 years: not recommended; ≥12 years: initially 50-100 mg in a single or divided doses; titrate at 2-week intervals

Aldactone Tab: 25, 50\*, 100\*mg

triamterene (B) <12 years: not recommended; ≥12 years: 100 mg bid; max 300 mg
 Dyrenium Cap: 50, 100 mg
</p>

#### **Loop Diuretics**

bumetanide (C)(G) <18 years: not recommended; ≥18 years: 0.5-2 mg daily; may repeat at 4-5-hour intervals; max 10 mg/day</p>

Bumex Tab: 0.5\*, 1\*, 2\*mg

Comment: bumetanide is contraindicated with sulfa drug allergy.

ethacrynic acid (B)(G) ≤1 month: not recommended; >1 month-12 years: initially 25 mg/day; then adjust dose in 25 mg increments; >12 years: max 50-200 mg once daily

Edecrin Tab: 25, 50 mg

 $\Rightarrow$  ethacrynate sodium (B)(G) <1 month: not recommended;  $\geq$ 1 month-12 years: use the smallest effective dose; initially 25 mg; then careful stepwise increments in dosage of 25 mg to achieve effective maintenance; ≥12 years: administer smallest dose required to produce gradual weight loss (about 1-2 pounds per day); onset of diuresis usually occurs at 50-100 mg in children ≥12 years; after diuresis has been achieved, the minimally effective dose (usually 50-200 mg/day) may be administered on a continuous or intermittent dosage schedule; dose titrations are usually in 25-50 mg increments to avoid derangement electrolyte and water excretion; the patient should be weighed under standard conditions before and during administration of *ethacrynate sodium*; the following schedule may be helpful in determining the lowest effective dose; Day 1: 50 mg once daily after a meal; Day 2: 50 mg bid after meals, if necessary; Day 3: 100 mg in the morning and 50-100 mg following the afternoon or evening meal, depending upon response to the morning dose; a few patients may require initial and maintenance doses as high as 200 mg bid; these higher doses, which should be achieved gradually, are most often required in patients with severe, refractory edema Sodium Edecrin Vial: 50 mg single dose

Comment: Sodium Edecrin is more potent than more commonly used loop and thiazide diuretics. Treatment of the edema associated with congestive heart failure, cirrhosis of the liver, and renal disease, including the nephrotic syndrome, short-term management of ascites due to malignancy, idiopathic edema, and lymphedema, short-term management of hospitalized pediatric patients, other than infants, with congenital heart disease or the nephrotic syndrome. IV Sodium Edecrin is indicated when a rapid onset of diuresis is desired, for example, in acute pulmonary edema or when gastrointestinal absorption is impaired or oral medication is not practical.

furosemide (C)(G) <12 years: not recommended; ≥12 years: initially 40 mg bid
 Lasix Tab: 20, 40\*, 80 mg; Oral Soln: 10 mg/ml (2, 4 oz w. dropper)
</p>

Comment: furosemide is contraindicated with sulfa drug allergy.

torsemide (B) <12 years: not recommended; ≥12 years: 5 mg once daily; may increase to 10 mg once daily
</p>

Demadex Tab: 5\*, 10\*, 20\*, 100\*mg

#### Other Diuretics

indapamide (B) <12 years: not recommended; ≥12 years: initially 1.25 mg once daily; may titrate dosage upward q 4 weeks if needed; max 5 mg/day Lozol Tab: 1.25, 2.5 mg

Comment: *indapamide* is contraindicated with sulfa drug allergy.

► metolazone (B) <12 years: not recommended; ≥12 years: 2.5-5 mg qd Zaroxolyn

*Tab*: 2.5, 5, 10 mg

Comment: metolazone is contraindicated with sulfa drug allergy.

#### DIURETIC COMBINATIONS

amiloride/hydrochlorothiazide (B)(G) <12 years: not recommended; ≥12 years: initially 1 tab daily; may increase to 2 tabs/day in a single or divided doses
 Moduretic Tab: amil 5 mg/hydro 50 mg\*
</p>

spironolactone/hydrochlorothiazide (D)(G)

Aldactazide 25 <12 years: not recommended;  $\geq$ 12 years: usual maintenance 50-100 mg in a single or divided doses

Tab: spiro 25 mg/hctz 25 mg

**Aldactazide 50** <12 years: not recommended; ≥12 years: usual maintenance

50-100 mg in a single or divided doses

Tab: spiro 50 mg/hydro 50 mg

► triamterene/hydrochlorothiazide (C)(G)

**Dyazide** <12 years: not recommended; ≥12 years: 1-2 caps once daily

Cap: triam 37.5 mg/hctz 25 mg

Maxzide <12 years: not recommended; ≥12 years: 1 tab once daily

Tab: triam 75 mg/hctz 50 mg\*

Maxzide-25 <12 years: not recommended; ≥12 years: 1-2 tabs once daily

Tab: triam 37.5 mg/hctz 25 mg\*

#### ANGIOTENSIN CONVERTING ENZYME INHIBITORS (ACEIS)

**Comment**: Black patients receiving ACEI monotherapy have been reported to have a higher incidence of angioedema compared to non-Blacks. Non-Blacks have a greater decrease in BP when ACEIs are used compared to Black patients.

benazepril (D)(G) <12 years: not recommended; ≥12 years: initially 10 mg daily; usual maintenance 20-40 mg/day in 1-2 divided doses; usual max 80 mg/day Lotensin Tab: 5, 10, 20, 40 mg</p>

captopril (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg bid-tid; after 1-2 weeks increase to 50 mg bid-tid</p>

Capoten Tab: 12.5\*, 25\*, 50\*, 100\*mg

Penalapril (D) <12 years: not recommended; ≥12 years: initially 5 mg daily; usual dosage range 10-40 mg/day; max 40 mg/day
</p>

Epaned Oral Solution Oral soln: 1 mg/ml (150 ml) (mixed berry)

Vasotec (G) Tab: 2.5\*, 5\*, 10, 20 mg

fosinopril (D) <6 years, <50 kg: not recommended; ≥6-12 years, >50 kg: 5-10 mg once daily; ≥12 years: initially 10 mg daily; usual maintenance 20-40 mg/day in a single or divided doses; max 80 mg/day

Monopril Tab: 10\*, 20, 40 mg

lisinopril (D)

Prinivil <6 years, <50 kg: not recommended; ≥6-12 years: initially 10 mg once daily; usual range 20-40 mg/day

Tab: 5\*, 10\*, 20\*, 40 mg

Qbrelis Oral Solution <6 years, GFR <30 mL/min: not recommended;  $\geq$ 6-12 years, GFR >30 mL/min: initially 0.07 mg/kg, max 5 mg; adjust according to BP up to a max 0.61 mg/kg (40 mg) once daily; administer as a single dose once daily

Oral soln: 1 mg/ml (150 ml)

Zestril <12 years: not recommended; ≥12 years: initially 10 mg daily; usual range 20-40 mg/day

Tab: 2.5, 5\*, 10, 20, 30, 40 mg

moexipril (D) <12 years: not recommended; ≥12 years: initially 7.5 mg daily; usual range 15-30 mg/day in 1-2 divided doses; max 30 mg/day
</p>

Univasc *Tab*: 7.5\*, 15\*mg

perindopril (D) <12 years: not recommended; ≥12 years: 2-8 mg daily-bid; max 16 mg/day</p>

Aceon Tab: 2\*, 4\*, 8\*mg

puinapril (D) <12 years: not recommended; ≥12 years: initially 10 mg once daily; usual maintenance 20-80 mg daily in 1-2 divided doses
</p>

Accupril Tab: 5\*, 10, 20, 40 mg

ramipril (D)(G) <12 years: not recommended; ≥12 years: initially 2.5 mg bid; usual maintenance 2.5-20 mg in 1-2 divided doses
</p>

Altace Tab/Cap: 1.25, 2.5, 5, 10 mg

trandolapril (C; D in 2nd, 3rd) <12 years: not recommended; ≥12 years: initially
 1-2 mg once daily; adjust at 1-week intervals; usual range 2-4 mg in 1-2 divided
 doses; max 8 mg/day
</p>

Mavik Tab: 1\*, 2, 4 mg

#### ANGIOTENSIN II RECEPTOR BLOCKERS (ARBs)

azilsartan medoxomil (D) <12 years: not recommended; ≥12 years: Monotherapy, not volume depleted: 80 mg once daily; Volume-depleted (concomitant high-dose diuretic): initially 40 mg once daily
</p>

Edarbi Tab: 40, 80 mg

candesartan (D)(G) <12 years: not recommended; ≥12 years: initially 16 mg daily; range 8-32 mg in 1-2 divided doses
</p>

**Atacand** *Tab*: 4, 8, 16, 32 mg

eprosartan (D)(G) <12 years: not recommended; ≥12 years: initially 400 mg bid or 600 mg once daily; max 800 mg/day
</p>

Teveten Tab: 400, 600 mg

irbesartan (D)(G) <12 years: not recommended; ≥12 years: initially 150 mg daily; titrate up to 300 mg</p>

Avapro Tab: 75, 150, 300 mg

losartan (D)(G) <12 years: not recommended; ≥12 years: initially 50 mg daily; max 100 mg/day
</p>

Cozaar Tab: 25, 50, 100 mg

Dimesartan medoxomil (D)(G) <6 years: not recommended; ≥6-16 years: 20-35 kg: initially 10 mg once daily; after 2 weeks, may increase to max 20 mg once daily; ≥6-16 years: >35 kg: initially 20 mg once daily; after 2 weeks, may increase to max 40 mg once daily; ≥16 years: initially 20 mg once daily; after 2 weeks, may increase to 40 mg once daily

Benicar Tab: 5, 20, 40 mg

telmisartan (D)(G) <12 years: not recommended; ≥12 years: initially 40 mg once daily
</p>

Micardis Tab: 20, 40, 80 mg

valsartan (D)(G) <12 years: not recommended; ≥12 years: initially 80 mg once daily; may increase to 160 or 320 mg once daily after 2-4 weeks; usual range 80-320 mg/day
</p>

Diovan Tab: 40\*, 80, 160, 320 mg

#### CALCIUM CHANNEL BLOCKERS (CCBs)

#### Benzothiazepines

→ diltiazem (C)(G)

Cardizem <12 years: not established; ≥12 years: initially 30 mg qid; may increase gradually every 1-2 days; max 360 mg/day in divided doses Tab: 30, 60, 90, 120 mg

Cardizem CD <12 years: not established;  $\geq$ 12 years: initially 120-180 mg daily; adjust at 1-2-week intervals; max 480 mg/day

Cap: 120, 180, 240, 300, 360 mg ext-rel

Cardizem LA <12 years: not established; ≥12 years: initially 180-240 mg daily; titrate at 2-week intervals; max 540 mg/day

Tab: 120, 180, 240, 300, 360, 420 mg ext-rel

Cardizem SR <12 years: not established; ≥12 years: initially 60-120 mg bid; adjust at 2-week intervals; max 360 mg/day

Cap: 60, 90, 120 mg sust-rel

Cap: 120, 180, 240 mg ext-rel

Cartia XT <12 years: not established; ≥12 years: initially 180 or 240 mg once daily; max 540 mg once daily

Cap: 120, 180, 240, 300 mg ext-rel

Dilacor XR <12 years: not established; ≥12 years: initially 180 <u>or</u> 240 mg in AM; usual range 180-480 mg/day; max 540 mg/day

 $\label{eq:Tiazac} \textbf{(G)} < 12 \ \text{years: not established;} \geq 12 \ \text{years: initially } 120\text{-}240 \ \text{mg daily;} \\ \text{adjust at } 2\text{-week intervals; usual max } 540 \ \text{mg/day}$ 

Cap: 120, 180, 240, 300, 360, 420 mg ext-rel

diltiazem maleate (C) <12 years: not recommended; ≥12 years: initially 120-180 mg daily; adjust at 2-week intervals; usual range 120-480 mg daily
</p>

Tiamate Cap: 120, 180, 240 mg ext-rel

#### Dihydropyridines

amlodipine (C) <12 years: not established; ≥12 years: initially 5 mg once daily; max
 10 mg/day
</p>

Norvasc Tab: 2.5, 5, 10 mg

Description butyrate (C) <18 years: not recommended; ≥18 years: administer by IV infusion; initially 1-2 mg/hour; double dose at 90-second intervals until BP approaches goal; then titrate slower; adjust at 5-10-minute intervals; maintenance 4-6 mg/hour; usual max, 16-32 mg/hour; do not exceed 1,000 ml (21 mg/hour for 24 hours) due to lipid load

Cleviprex Vial: 0.5 mg/ml soln for IV infusion (single use, 50, 100 ml) (lipids) Comment: Cleviprex is indicated to reduce blood pressure when oral therapy is not feasible or desirable. Cleviprex is contraindicated with egg or soy allergy.

► felodipine (C)(G) <12 years: not recommended; ≥12 years: initially 5 mg daily; usual range 2.5-10 mg daily; adjust at 2-week intervals; max 10 mg/day
</p>

Plendil Tab: 2.5, 5, 10 mg ext-rel

**▶** isradipine (C)

 $\label{eq:def:DynaCirc} $$ DynaCirc < 12 $ years: not recommended; $\ge 12 $ years: initially 2.5 $ mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in increments of 5 mg/day $ 12.5 mg bid; adjust in$ 

Cap: 2.5, 5 mg

DynaCirc CR <12 years: not recommended; ≥12 years: initially 5 mg daily; adjust in increments of 5 mg/day at 2-4-week intervals; max 20 mg/day *Tab*: 5, 10 mg cont-rel

nicardipine (C)(G)

Cardene <18 years: not recommended; ≥18 years: initially 20 mg tid; adjust at intervals of at least 3 days; max 120 mg/day

Cap: 20, 30 mg

Cardene SR <12 years: not recommended; ≥12 years: 30-60 mg bid Cap: 30, 45, 60 mg sust-rel

#### nifedipine (C)(G)

Adalat <12 years: not recommended; ≥12 years: initially 10 mg tid; usual range 10-20 mg tid; max 180 mg/day

Cap: 10, 20 mg

Adalat CC <12 years: not recommended; ≥12 years: initially 10 mg tid; usual range 10-20 mg tid; max 180 mg/day

Cap: 30, 60, 90 mg ext-rel

Afeditab CR <12 years: not recommended;  $\geq$ 12 years: initially 30 mg once daily; titrate over 7-14 days; max 90 mg/day

Cap: 30, 60 mg ext-rel

Procardia <12 years: not recommended; ≥12 years: initially 10 mg tid; titrate over 7-14 days: max 30 mg/dose and 180 mg/day in divided doses

Cap: 10, 20 mg

**Procardia XL** <12 years: not recommended;  $\geq$ 12 years: initially 30-60 mg daily; titrate over 7-14 days; max dose 90 mg/day

*Tab*: 30, 60, 90 mg ext-rel

#### ▶ nisoldipine (C)

Sular <12 years: not recommended; ≥12 years: initially 20 mg daily; may increase by 10 mg weekly; usual maintenance 20-40 mg/day; max 60 mg/day *Tab*: 10, 20, 30, 40 mg ext-rel

#### **Diphenylalkylamines**

#### ▶ verapamil (C)(G)

 $\bf \tilde{C}alan$  <12 years: not recommended; ≥12 years: 80-120 mg tid; may titrate up; usual max 360 mg in divided doses

Tab: 40, 80\*, 120\*mg

Calan SR <12 years: not recommended;  $\geq$ 12 years: initially 120 mg in the AM; may titrate up; max 480 mg/day in divided doses

Cplt: 120, 180\*, 240\*mg sust-rel

Covera HS <12 years: not recommended;  $\ge$ 12 years: initially 180 mg q HS; titrate to 240 mg; then to 360 mg; then to 480 mg if needed

Tab: 180, 240 mg ext-rel

Isoptin <12 years: not recommended; ≥12 years: initially 80-120 mg tid *Tab*: 40, 80, 120 mg

**Isoptin SR** <12 years: not recommended;  $\geq$ 12 years: initially 120-180 mg in the AM; may increase to 240 mg in the AM; then 180 mg q 12 hours or 240 mg in the AM and 120 mg in the PM; then 240 mg q 12 hours

Tab: 120, 180\*, 240\*mg sust-rel

Verelan <12 years: not recommended; ≥12 years: initially 240 mg once daily; adjust in 120 mg increments; max 480 mg/day

Cap: 120, 180, 240, 360 mg sust-rel

Verelan PM <12 years: not recommended; ≥12 years: initially 200 mg q HS; may titrate upward to 300 mg; then 400 mg if needed

Cap: 100, 200, 300 mg ext-rel

#### ALPHA-1 ANTAGONISTS

Comment: Educate the patient regarding potential side effects of hypotension when taking an alpha-1 antagonist, especially with first dose ("first dose effect"). Start at lowest dose and titrate upward.

doxazosin (C)(G) <12 years: not recommended; ≥12 years: initially 1 mg once daily
 at HS; increase dose slowly every 2 weeks if needed; max 16 mg/day
</p>

Cardura Tab: 1\*, 2\*, 4\*, 8\*mg Cardura XL Tab: 4, 8 mg

prazosin (C)(G) <12 years: not recommended; ≥12 years: first dose at HS, 1 mg bidtid; increase dose slowly; usual range 6-15 mg/day in divided doses; max 20-40 mg/day</p>

Minipress Cap: 1, 2, 5 mg

terazosin (C) <12 years: not recommended; ≥12 years: 1 mg q HS, then increase dose slowly; usual range 1-5 mg q HS; max 20 mg/day
 Hytrin Cap: 1, 2, 5, 10 mg
</p>

#### CENTRAL ALPHA-AGONISTS

clonidine (C)

Catapres <12 years: not recommended; ≥12 years: initially 0.1 mg bid; usual range 0.2-0.6 mg/day in divided doses; max 2.4 mg/day; *Tab*: 0.1\*, 0.2\*, 0.3\*mg

Catapres-TTS <12 years: not recommended; ≥12 years: 0.1 mg patch weekly; increase after 1-2 weeks if needed; max 0.6 mg/day

Patch: 0.1, 0.2 mg/day (12/carton); 0.3 mg/day (4/carton)

Kapvay (G) <12 years: not recommended; ≥12 years: initially 0.1 mg bid; usual range 0.2-0.6 mg/day in divided doses; max 2.4 mg/day; *Tab*: 0.1, 0.2 mg
Nexiclon XR <12 years: not recommended; ≥12 years: initially 0.18 mg (2 ml)

suspension or 0.17 mg tab once daily; usual max 0.52 mg (6 ml suspension) once daily

Tab: 0.17, 0.26 mg ext-rel; Oral susp: 0.09 mg/ml ext-rel (4 oz)

guanfacine (B)(G) <12 years: not recommended; ≥12 years: initially 1 mg/day q HS; may increase to 2 mg/day q HS; usual max 3 mg/day
</p>

Tenex Tab: 1, 2 mg

methyldopa (B)(G) <12 years: initially 10 mg/kg/day in 2-4 divided doses; max 65 mg/kg/day or 3 gm/day, whichever is less; ≥12 years: initially 250 mg bid-tid; titrate at 2-day intervals; usual maintenance 500 mg/day to 2 gm/day; max 3 gm/day Aldomet Tab: 125, 250, 500 mg; Oral susp: 250 mg/5 ml (473 ml)
</p>

#### ALDOSTERONE RECEPTOR BLOCKER

Peplerenone (B) <12 years: not recommended; ≥12 years: 25-50 mg daily; may increase to 50 mg bid; max 100 mg/day</p>

Inspra Tab: 25, 50 mg

Comment: Contraindicated with concomitant potent CYP3A4 inhibitors. Risk of hyperkalemia with concomitant ACE-I or ARB. Monitor serum potassium at baseline, 1 week, and 1 month. Caution with serum Cr >2 mg/dL (male) or >1.8 mg/dL (female) and/or CrCl <50 mL/min, and DM with proteinuria.

#### PERIPHERAL ADRENERGIC BLOCKER

guanethidine (C) <12 years: not recommended; ≥12 years: initially 10 mg daily; may adjust dose at 5-7 day intervals; usual range 25-50 mg/day
</p>

Ismelin Tab: 10, 25 mg

#### DIRECT RENIN INHIBITOR

aliskiren (D) <18 years: not recommended; ≥18 years: initially 150 mg once daily;
 max 300 mg/day
</p>

Tekturna Tab: 150, 300 mg

#### PERIPHERAL VASODILATORS

hydralazine (C)(G) <12 years: initially 0.75 mg/kg/day in 4 divided doses; increase gradually over 3-4 weeks; max 7.5 mg/kg/day or 2,000 mg/day; ≥12 years: initially 10 mg qid x 2-4 days; then increase to 25 mg qid for remainder of 1st week; then increase to 50 mg qid; max 300 mg/day</p>

Tab: 10, 25, 50, 100 mg

minoxidil (C) <12 years: initially 0.2 mg/kg daily; may increase in 50%-100% increments every 3 days; usual range 0.25-1 gm/kg/day; max 50 mg/day; ≥12 years: initially 5 mg daily; may increase at 3-day intervals to 10 mg/day, then 20 mg/day, then 40 mg/day; usual range 10-40 mg/day; max 100 mg/day
</p>

Loniten Tab: 2.5\*, 10\*mg

#### **ACEI/DIURETIC COMBINATIONS**

**▶** benazepril/hydrochlorothiazide (D)

Lotensin HCT <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Lotensin HCT 5/6.25 benaz 5 mg/hctz 6.25 mg\*

Lotensin HCT 10/12.5 benaz 10 mg/hctz 12.5 mg\*

Lotensin HCT 20/12.5 benaz 20 mg/hctz 12.5 mg\*

Lotensin HCT 20/25 benaz 20 mg/hctz 25 mg\*

#### captopril/hydrochlorothiazide (D)(G)

Capozide <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Capozide 25/15 capt 25 mg/hctz 15 mg\*

Capozide 25/25 capt 25 mg/hctz 25 mg\*

Capozide 50/15 capt 50 mg/hctz 15 mg\*

Capozide 50/25 capt 50 mg/hctz 25 mg\*

#### enalapril/hydrochlorothiazide (D)

Vaseretic <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Vaseretic 5/12.5 enal 5 mg/hctz 12.5 mg

Vaseretic 10/25 enal 10 mg/hctz 25 mg

#### ► lisinopril/hvdrochlorothiazide (D)

Prinzide <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Prinzide 10/12.5 lis 10 mg/hctz 12.5 mg

**Prinzide 20/12.5** *lis* 20 mg/hctz 12.5 mg

Prinzide 20/25 lis 20 mg/hctz 25 mg

**Zestoretic** <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components; *CrCl* <40 *mL/min*: not recommended

Tab: Zestoretic 10/12.5 lis 10 mg/hctz 12.5 mg

Zestoretic 20/12.5 lis 20 mg/hctz 12.5 mg\*

Zestoretic 20/25 lis 20 mg/hctz 25 mg

➤ moexipril/hydrochlorothiazide (D)

Uniretic <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Uniretic 7.5/12.5 moex 7.5 mg/hctz 12.5 mg\*

Uniretic 15/12.5 moex 15 mg/hctz 12.5 mg\*

Uniretic 15/25 moex 15 mg/hctz 25 mg\*

□ quinapril/hydrochlorothiazide (D)

Accuretic <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Accuretic 10/12.5 quin 10 mg/hctz 12.5 mg\*

Accuretic 20/12.5 quin 20 mg/hctz 12.5 mg\*

Accuretic 20/25 quin 20 mg/hctz 25 mg\*

#### ARB/DIURETIC COMBINATIONS

*▶* azilsartan/chlorthalidone (D)

Edarbyclor <18 years: not recommended; ≥18 years: 1 tab once daily; titrate individual components

Tab: Edarbyclor 40/12.5 azil 40 mg/chlor 12.5 mg

Edarbyclor 40/25 azil 40 mg/chlor 25 mg

candesartan/hydrochlorothiazide (D) <12 years: not recommended; ≥12 years: 1
 tab once daily; titrate individual components
</p>

Atacand HCT

*Tab*: **Atacand HCT 16/12.5** *cande* 16 mg/hctz 12.5 mg

Atacand HCT 32/12.5 cande 32 mg/hctz 12.5 mg

> eprosartan/hydrochlorothiazide (D)

Teveten HCT <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Teveten HCT 600/12.5 epro 600 mg/hctz 12.5 mg

Teveten HCT 600/25 epro 600 mg/hctz 25 mg

*irbesartan/hydrochlorothiazide* (D)

**Avalide** <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Avalide 150/12.5 irbes 150 mg/hctz 12.5 mg

**Avalide 300/12.5** irbes 300 mg/hctz 12.5 mg

losartan/hydrochlorothiazide (D)(G)

**Hyzaar** <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Hyzaar 50/12.5 losar 50 mg/hctz 12.5 mg

Hyzaar 100/12.5 losar 100 mg/hctz 12.5 mg

Hyzaar 100/25 losar 100 mg/hctz 25 mg

Inyzaar 100/25 losar 100 mg/nctz 25 mg

→ olmesartan medoxomil/hydrochlorothiazide (D)(G)

Benicar HCT <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

*Tab:* **Benicar HCT 20/12.5** *olme* 20 mg/hctz 12.5 mg

Benicar HCT 40/12.5 olme 40 mg/hctz 12.5 mg

Benicar HCT 40/25 olme 40 mg/hctz 25 mg

► telmisartan/hydrochlorothiazide (D)(G)

Micardis  $\dot{H}CT$  <12 years: not recommended;  $\geq$ 12 years: 1 tab once daily; titrate individual components

Tab: Micardis HCT 40/12.5 telmi 40 mg/hctz 12.5 mg Micardis HCT 80/12.5 telmi 80 mg/hctz 12.5 mg

Micardis HCT 80/25 telmi 80 mg/hctz 25 mg

valsartan/hydrochlorothiazide (D)

Diovan HCT <12 years: not recommended; ≥12 years: 1 tab once daily; titrate individual components

Tab: Diovan HCT 80/12.5 vals 80 mg/hctz 12.5 mg

Diovan HCT 160/12.5 vals 160 mg/hctz 12.5 mg

Diovan HCT 160/25 vals 160 mg/hctz 25 mg

Diovan HCT 320/12.5 vals 320 mg/hctz 12.5 mg

Diovan HCT 320/25 vals 320 mg/hctz 25 mg

#### CENTRAL ALPHA-AGONIST/DIURETIC COMBINATIONS

clonidine/chlorthalidone (C)

Combipres <12 years: not recommended; ≥12 years: 1 tab daily-bid

Tab: Combipres 0.1 clon 0.1 mg/chlorthal 15 mg\*

Combipres 0.2 clon 0.2 mg/chlorthal 15 mg\*

Combipres 0.3 clon 0.3 mg/chlorthal 15 mg\*

methyldopa/hydrochlorothiazide (C)(G)

Aldoril <12 years: not recommended; ≥12 years: initially Aldoril 15 bid-tid or

Aldoril 25 bid; titrate individual components

Tab: Aldoril 15 meth 250 mg/hctz 15 mg

Aldoril 25 meth 250 mg/hctz 25 mg

Aldoril D30 meth 500 mg/hctz 30 mg

Aldoril D50 meth 500 mg/hctz 50 mg

### BETA-BLOCKER (CARDIOSELECTIVE)/DIURETIC COMBINATIONS

⇒ atenolol/chlorthalidone (D)(G)

Tenoretic <12 years: not recommended; ≥12 years: initially *tenoretic* 50 mg once daily; may increase to *tenoretic* 100 mg once daily

Tab: Tenoretic 50/25 aten 50 mg/chlor 25 mg\*

Tenoretic 100/25 aten 100 mg/chlor 25 mg

bisoprolol/hydrochlorothiazide (C)

Ziac <12 years: not recommended; ≥12 years: initially one 2.5/6.25 mg tab daily; adjust at 2 week intervals; max two 10/6.25 mg tabs daily

Tab: Ziac 2.5 biso 2.5 mg/hctz 6.25 mg

Ziac 5 biso 5 mg/hctz 6.25 mg

Ziac 10 biso 10 mg/hctz 6.25 mg

metoprolol succinate/hydrochlorothiazide (C)

Lopressor HCT <12 years: not recommended; ≥12 years: titrate individual components

Tab: Lopressor HCT 50/25 meto succ 50 mg/hctz 25 mg\*

Lopressor HCT 100/25 meto succ 100 mg/hctz 25 mg\*

Lopressor HCT 100/50 meto succ 100 mg/hctz 50 mg\*

metoprolol succinate/ext-rel hydrochlorothiazide (C)

**Dutoprol** <12 years: not established; ≥12 years: titrate individual components; may titrate to max 200/25 mg once daily

Tab: Dutoprol 25/12.5 meto succ 25 mg/ext-rel hctz 12.5 mg

Dutoprol 50/12.5 meto succ 50 mg/ext-rel hctz 12.5 mg

Dutoprol 100/12.5 meto succ 100 mg/ext-rel hctz 12.5 mg

#### BETA-BLOCKER (NON-CARDIOSELECTIVE)/DIURETIC COMBINATIONS

*▶* nadolol/bendroflumethiazide (C)

Corzide <12 years: not recommended; ≥12 years: titrate individual components Tab: Corzide 40/5 nado 40 mg/bend 5 mg\*

Corzide 80/5 nado 80 mg/bend 5 mg\*

propranolol/hydrochlorothiazide (C)(G)

**Inderide** <12 years: not recommended; ≥12 years: titrate individual components

Tab: Inderide 40/25 prop 40 mg/hctz 25 mg\*

Inderide 80/25 prop 80 mg/hctz 25 mg\*
Inderide LA titrate individual components

Cap: Inderide LA 80/50 prop 80 mg/hctz 50 mg sust-rel

Inderide LA 120/50 prop 120 mg/hctz 50 mg sust-rel

Inderide LA 160/50 prop 160 mg/hctz 50 mg sust-rel

Timolide <12 years: not recommended; ≥12 years: usual maintenance 2 tabs/day in a single or 2 divided doses

Tab: timo 10 mg/hctz 25 mg

#### BETA-BLOCKER (CARDIOSELECTIVE)/ARB COMBINATION

▶ nebivolol/valsartan (X) <12 years: not recommended; ≥12 years: 1 tab daily; may initiate when inadequately controlled on nebivolol 10 mg or valsartan 80 mg</p>
Byvalson Tab: nebi 5 mg/val 80 mg

#### ALPHA-1 ANTAGONIST/DIURETIC COMBINATIONS

▶ prazosin/polythiazide (C)

Minizide <12 years: not recommended; ≥12 years: titrate individual components

Cap: Minizide 1 praz 1 mg/poly 0.5 mg Minizide 2 praz 2 mg/poly 0.5 mg Minizide 5 praz 5 mg/poly 0.5 mg

#### PERIPHERAL ADRENERGIC BLOCKER/HCTZ COMBINATIONS

**>** guanethidine/hydrochlorothiazide (C)

Esimil <12 years: not recommended; ≥12 years: titrate individual components *Tab*: Esimil 10/25 guan 1 mg/hctz 25 mg

#### ACEI/CCB COMBINATIONS

**>** amlodipine/benazepril (D)

**Lotrel** <12 years: not recommended; ≥12 years: titrate individual components

Cap: Lotrel 2.5/10 amlo 2.5 mg/benaz 10 mg

Lotrel 5/10 amlo 5 mg/benaz 10 mg Lotrel 5/20 amlo 5 mg/benaz 20 mg

Lotrel 10/20 amlo 10 mg/benaz 20 mg

Lotrel 5/40 amlo 5 mg/benaz 40 mg

Lotrel 10/40 amlo 10 mg/benaz 40 mg

#### amlodipine/perindopril (D)

Prolastin <12 years: not recommended; ≥12 years: titrate individual components

Cap: Prolastin 2.5/3.5 amlo 2.5 mg/peri 3.5 mg

Prolastin 5/7 amlo 5 mg/peri 7 mg

Prolastin 5/14 amlo 5 mg/peri 14 mg

#### 

Teczem <12 years: not recommended; ≥12 years: titrate individual components Tab: enal 5 mg/dil 180 mg ext-rel

#### > enalapril/felodipine (D)

Lexxel <12 years: not recommended; ≥12 years: initially 1 tab daily; after 1-2 weeks may increase to 2 tabs/day; titrate individual components

Tab: Lexxel 5/2.5 enal 5 mg/felo 2.5 mg ext-rel

Lexxel 5/5 enal 5 mg/felo 5 mg ext-rel

#### perindopril/amlodipine (D)

Prestalia <12 years: not recommended; ≥12 years: titrate individual components; max 14/10 once daily

Tab: Prestalia 3.5/2.5 peri 3.5 mg/amlo 2.5 mg

Prestalia 7/5 peri 7 mg/amlo 5 mg

Prestalia 14/10 peri 14 mg/amlo 10 mg

#### ► trandolapril/verapamil (D)

Tarka <12 years: not recommended; ≥12 years: titrate individual components

Tab: Tarka 1/240 tran 1 mg/ver 240 mg ext-rel

Tarka 2/180 tran 2 mg/ver 180 mg ext-rel

Tarka 2/240 tran 2 mg/ver 240 mg ext-rel

Tarka 4/240 tran 4 mg/ver 240 mg ext-rel

#### DRI/HCTZ COMBINATIONS

aliskiren/hydrochlorothiazide (D) <12 years: not recommended; ≥12 years: initially aliskiren 150 mg once daily; max aliskiren 300 mg/day
</p>

Tekturna HCT

Tab: Tekturna HCT 150/12.5 alisk 150 mg/hctz 12.5 mg

Tekturna HCT 150/25 alisk 150 mg/hctz 25 mg

**Tekturna HCT 300/12.5** alisk 300 mg/hctz 12.5 mg

Tekturna HCT 300/25 alisk 300 mg/hctz 25 mg

#### DRI/ARB COMBINATIONS

#### ⇒ aliskiren/valsartan (D)

Valturna <12 years: not recommended; ≥12 years: initially 150/160 once daily; may increase to max 300/320 once daily

Tab: Valturna 150/160 alisk 150 mg/vals 160 mg Valturna 300/320 alisk 300 mg/vals 320 mg

#### DRI/CCB COMBINATIONS

#### aliskiren/amlodipine (D)

Tekamlo <12 years: not recommended; ≥12 years: initially 150/5 once daily; may increase to max 300/10 once daily

Tab: Tekamlo 150/5 alisk 150 mg/amlo 5 mg
Tekamlo 150/10 alisk 150 mg/amlo 10 mg
Tekamlo 300/5 alisk 300 mg/amlo 5 mg
Tekamlo 300/10 alisk 300 mg/amlo 10 mg

### DRI/CCB/HCTZ COMBINATIONS

### *▶* aliskiren/amlodipine/hydrochlorothiazide (D)

Amturnide <12 years: not recommended; ≥12 years: initially 150/5/12.5 once daily; may increase to max 300/10/25 once daily

Tab: Amturnide 150/5/12.5 alisk 150 mg/amlo 5 mg/hctz 12.5 mg
Amturnide 300/5/12.5 alisk 300 mg/amlo 5 mg/hctz 12.5 mg
Amturnide 300/5/25 alisk 300 mg/amlo 5 mg/hctz 25 mg
Amturnide 300/10/25 alisk 300 mg/amlo 10 mg/hctz 25 mg

# HYPERTENSION

### ARB/CCB COMBINATIONS

## amlodipine/valsartan medoxomil (D)(G)

Exforge <12 years: not recommended; ≥12 years: 1 tab daily; titrate individual

components at 1-week intervals; max 10/320 daily *Tab*: Exforge 5/160 *amlo* 5 mg/*vals* 160 mg

Exforge 5/320 amlo 5 mg/vals 320 mg

Exforge 10/160 amlo 10 mg/vals 160 mg

Exforge 10/320 amlo 10 mg/vals 320 mg

### amlodipine/olmesartan (D)(G)

**Azor** <12 years: not recommended; ≥12 years: titrate individual components

Tab: Azor 5/20 amlo 5 mg/olme 20 mg

Azor 10/20 amlo 10 mg/olme 20 mg

Azor 5/40 amlo 5 mg/olme 40 mg

Azor 10/40 amlo 10 mg/olme 40 mg

### ► telmisartan/amlodipine (D)

Twynsta <12 years: not recommended; ≥12 years: initially 40/5 once daily;

titrate at 1 week intervals; max 80/10 once daily

Tab: Twynsta 40/5 telmi 40 mg/amlo 5 mg

Twynsta 40/10 telmi 40 mg/amlo 10 mg

Twynsta 80/5 telmi 80 mg/amlo 5 mg

Twynsta 80/10 telmi 80 mg/amlo 10 mg

### ARB/CCB/HCTZ COMBINATIONS

### amlodipine/valsartan medoxomil/hydrochlorothiazide (D)(G)

Exforge HCT: <12 years: not recommended; ≥12 years: initially 5/160/12.5 once daily; may titrate at 1-week intervals to max 10/320/25 once daily

Tab: Exforge HCT 5/160/12.5 amlo 5 mg/vals 160 mg/hctz 12.5 mg

Exforge HCT 5/160/25 amlo 5 mg/vals 160 mg/hctz 25 mg

Exforge HCT 10/160/12.5 amlo 10 mg/vals 160 mg/hctz 12.5 mg

Exforge HCT 10/160/25 amlo 10 mg/vals 160 mg/hctz 25 mg

Exforge HCT 10/320/25 amlo 10 mg/vals 320 mg/hctz 25 mg

### olmesartan medoxomil/amlodipine/hydrochlorothiazide (D)(G)

Tribenzor: <12 years: not recommended; ≥12 years: initially 40/5/12.5 once

daily; may titrate at 1-week intervals to max 40/10/25 daily

Tab: Tribenzor 40/5/12.5 olme 40 mg/amlo 5 mg/hctz 12.5 mg

**Tribenzor 40/5/25** olme 40 mg/amlo 5 mg/hctz 25 mg

Tribenzor 40/10/12.5 olme 40 mg/amlo 10 mg/hctz 12.5 mg

Tribenzor 40/10/25 olme 40 mg/amlo 10 mg/hctz 25 mg

### OTHER COMBINATION AGENTS

### *▶* clonidine/chlorthalidone (C)

Clorpres <12 years: not recommended; ≥12 years: initially 0.1/15 once daily; may titrate to max 0.3/15 bid

Tab: Clorpres 0.1/15 clon 0.1 mg/chlor 15 mg

Clorpres 0.2/15 clon 0.2 mg/chlor 15 mg

Clorpres 0.3/15 clon 0.3 mg/chlor 15 mg

### reserpine/hydroflumethiazide (C)

Salutensin <12 years: not recommended; ≥12 years: initially 1.25/25 once daily;

may titrate to 1.25/25 bid or 1.25/50 once daily

Tab: Salutensin 1.25/25 enal 1.25 mg/hydro 25 mg Salutensin 1.25/50: enal 1.25 mg/hydro 50 mg

### ANTIHYPERTENSION/ANTILIPID COMBINATIONS

### **CCB/Statin Combinations**

### *⇒* amlodipine/atorvastatin (X)

Caduet <10 years: not established; ≥10 years (female post menarche) select according to blood pressure and lipid values; titrate *amlodipine* over 7-14 days; titrate *atorvastatin* according to monitored lipid values; max *amlodipine* 10 mg/day and max *atorvastatin* 80 mg/day; refer to contraindications and precautions for CCB and statin therapy

Tab: Caduet 2.5/10 amlo 2.5 mg/ator 10 mg

Caduet 2.5/20 amlo 2.5 mg/ator 20 mg

Caduet 5/10 amlo 5 mg/ator 10 mg

Caduet 5/20 amlo 5 mg/ator 20 mg

Caduet 5/40 amlo 5 mg/ator 40 mg

Caduet 5/80 amlo 5 mg/ator 80 mg

Caduet 10/10 amlo 10 mg/ator 10 mg

Caduet 10/20 amlo 10 mg/ator 20 mg

Caduet 10/40 amlo 10 mg/ator 40 mg

Caduet 10/80 amlo 10 mg/ator 80 mg

# HYPERTHYROIDISM

methimazole (D) <12 years: initially 0.4 mg/kg/day in 3 divided doses; maintenance 0.2 mg/kg/day or 1/2 initial dose; ≥12 years: initially 15-60 mg/day in 3 divided doses; maintenance 5-15 mg/day

Tapazole Tab: 5\*, 10\*mg

Comment: *methimazole* potentiates anticoagulants. Contraindicated in nursing mothers

### ▶ propylthiouracil (ptu) (D)(G)

Propyl-Thyracil <6 years: not recommended; ≥6-10 years: initially 50-150 mg/day or 5-7 mg/kg/day in 3 divided doses; >10 years: initially 150-300 mg/day or 5-7 mg/kg/day in 3 divided doses; *maintenance*: 0.2 mg/kg/day or 1/2-2/3 of initial dose; initially 100-900 mg/day in 3 divided doses; maintenance usually 50-600 mg/day in 2 divided doses

*Tab*: 50\*mg

Comment: Preferred agent in pregnancy. Side effects include dermatitis, nausea, agranulocytosis, and hypothyroidism. Should be taken regularly for 2 years. Do not discontinue abruptly.

### BETA-ADRENERGIC BLOCKER

▶ propranolol (C)(G)

Inderal <12 years: not recommended; ≥12 years: 40-240 mg once daily Tab: 10\*, 20\*, 40\*, 60\*, 80\*mg

Inderal LA <12 years: not recommended; ≥12 years: initially 80 mg daily in a single dose; increase q 3-7 days; usual range 120-160 mg/day; max 320 mg/day in a single dose

Cap: 60, 80, 120, 160 mg sust-rel

InnoPran XL <12 years: not recommended; ≥12 years: initially 80 mg q HS; max 120 mg/day

Cap: 80, 120 mg ext-rel



# **HYPERTRIGLYCERIDEMIA**

### OMEGA 3-FATTY ACID ETHYL ESTERS

Comment: Vascepa, Lovaza, and Epanova are indicated for the treatment of TG  $\geq$ 500 mg/dL.

icosapent ethyl (omega 3-fatty acid ethyl ester of EPA) (C) <18 years: not recommended; ≥18 years: 2 caps bid with food; max 4 gm/day; swallow whole, do not crush or chew

Vascepa sgc: 1 gm (α-tocopherol 4 mg/cap)

> omega 3-fatty acid ethyl esters (C)(G) <18 years: not recommended; ≥18 years: 2 gm bid or 4 gm daily; swallow whole, do not crush or chew</p>

Lovaza  $\bar{G}$  elcap: 1 gm ( $\alpha$ -tocopherol 4 mg/cap) (C) take 2-4 gel caps (2-4 gm) daily without regard to meals

Epanova Gelcap: 1 gm

### ISOBUTYRIC ACID DERIVATIVE

**▶** gemfibrozil (C)(G)

 $\dot{\text{Lopid}}$  <12 years: not recommended;  $\geq$  12 years: 600 mg bid 30 minutes before AM and PM meals

Tab: 600\*mg

## FIBRATES (FIBRIC ACID DERIVATIVES)

▶ fenofibrate (C) take with meals; adjust at 4-8-week intervals; discontinue if inadequate response after 2 months; lowest dose or contraindicated with renal impairment Antara <12 years: not recommended; ≥12 years: 43-130 mg once daily; max 130 mg/day

Cap: 43, 87, 130 mg

**FibriCor** <12 years: not recommended; ≥12 years: 30-105 mg once daily; max 105 mg/day

Tab: 30, 105 mg

TriCor (G) <12 years: not recommended; ≥12 years: 48-145 mg once daily; max 145 mg/day

Tab: 48, 145 mg

TriLipix (G) <12 years: not recommended; ≥12 years: 45-135 mg once daily; max 135 mg/day

Cap: 45, 135 mg del-rel

**Lipofen** (G) <12 years: not recommended; ≥12 years: 50-150 mg once daily; max 150 mg/day

Cap: 50, 150 mg

**Lofibra** <12 years: not recommended; ≥12 years: 67-200 mg daily; max 200 mg/ day

Tab: 67, 134, 200 mg

### NICOTINIC ACID DERIVATIVES

Comment: Contraindicated in liver disease. Decrease total cholesterol, LDL-C, and TG; increase HDL-C. Before initiating and at 4-6 weeks, 3 months, and 6 months of therapy, check fasting lipid profile or as indicated by manufacturer, LFT, glucose, and uric acid. Significant side effect of transient skin flushing. Take with food and take *aspirin* 325 mg 30 minutes before dose to decrease flushing.

niacin (C)

Niaspan <12 years: not recommended;  $\geq$ 12 years: 375 mg daily for 1st week; then, 500 mg daily for 2nd week; then, 750 mg daily for 3rd week; then, 1 gm daily for weeks 4-7; may increase by 500 mg q 4 weeks; usual range 1-3 gm/day

Tab: 500, 750, 1,000 mg ext-rel

Slo-Niacin <12 years: not recommended; ≥12 years: 250 mg or 500 mg or 750 mg q AM or HS

Tab: 250, 500, 750 mg cont-rel

### HMG-COA REDUCTASE INHIBITORS

atorvastatin (X)(G) <10 years: not recommended; ≥10 years (female post menarche): initially 10 mg daily; usual range 10-80 mg daily
</p>

Lipitor Tab: 10, 20, 40, 80 mg

► fluvastatin (X)(G) <18 years: not recommended; ≥18 years: initially 20-40 mg q HS; usual range 20-80 mg/day</p>

Lescol Cap: 20, 40 mg

Lescol XL Tab: 80 mg ext-rel

▶ lovastatin (X) <10 years: not recommended; 10-17 years: initially 10-20 mg daily at evening meal; may increase at 4 week intervals; max 40 mg daily; Concomitant fibrates, niacin, or CrCl <40 mL/min: usual max 20 mg/day initially 20 mg daily at evening meal; may increase at 4 week intervals; max 80 mg/day in a single or divided doses; Concomitant fibrates, niacin, or CrCl <40 mL/min: usual max 20 mg/day

Mevacor Tab: 10, 20, 40 mg

pravastatin (X)(G) <8 years: not recommended; 8-13 years: 20 mg q HS; 14-17 years: 40 mg q HS; >17 years: initially 10-20 mg q HS; usual range 10-80 mg/day; may start at 40 mg/day

Pravachol Tab: 10, 20, 40, 80 mg

> rosuvastatin (X)(G) <10 years: not recommended; 10-17 years: 5-20 mg q HS; >17 years: initially 20 mg q HS; usual range 5-40 mg/day; adjust at 4 week intervals; max 20 mg q HS

Crestor Tab: 5, 10, 20, 40 mg

simvastatin (X)(G) <10 years: not recommended; 10-17 years: initially 10 mg q HS; may increase at 4 week intervals; >17 years: initially 20 mg q HS; usual range 5-80 mg/day; adjust at 4 week intervals; max 40 mg q HS

Zocor Tab: 5, 10, 20, 40, 80 mg

### NICOTINIC ACID DERIVATIVE/HMG-COA REDUCTASE INHIBITOR

> Tab: Advicor 500 mg/20 mg niac 500 mg ext-rel/lova 20 mg Advicor 750 mg/20 mg niac 750 mg ext-rel/lova 20 mg Advicor 1,000 mg/20 mg niac 1,000 mg ext-rel/lova 20 mg

## **HYPOCALCEMIA**

Comment: Hypocalcemia resulting in metabolic bone disease may be secondary to hyperparathyroidism, pseudoparathyroidism, and chronic renal disease. Normal serum Ca++ range is approximately 8.5-12 mg/dL. Signs and symptoms of hypocalcemia include confusion, increased neuromuscular excitability, muscle spasms, paresthesias, hyperphosphatemia, positive Chvostek's sign, and positive Trousseau's sign. Signs and symptoms of hypercalcemia include fatigue, lethargy, decreased concentration and attention span, frank psychosis, anorexia, nausea, vomiting, constipation, bradycardia, heart block, shortened QT interval. Foods high in calcium include almonds, broccoli, baked beans, salmon, sardines, buttermilk, turnip greens, collard greens, spinach, pumpkin, rhubarb, and bran. Recommended daily calcium intake: 1-3 years: 700 mg; 4-8 years: 1,000 mg; 9-18 years: 1,300 mg; >18 years: 1,000 mg; pregnancy or nursing: 1,000-1,300 mg. Recommended daily vitamin D intake: >1 year: 600 IU; The American Academy of Rheumatology (AAR) recommends the following daily doses for anyone on a chronic oral corticosteroid regimen: Calcium 1,200-1,500 mg/day and vitamin D 800-1,000 IU/day.

### CALCIUM SUPPLEMENTS

Comment: Take *calcium* supplements after meals to avoid gastric upset. Dosages of *calcium* over 2,000 mg/day have not been shown to have any additional benefit. *Calcium* decreases *tetracycline* absorption. *Calcium* absorption is decreased by corticosteroids.

**>** calcitonin-salmon (C)

Miacalcin 200 units (1 spray intranasally) once daily; alternate nostrils each day Nasal spray: 14 dose (2 ml)

Miacalcin injection 100 units/day SC  $\underline{or}$  IM

Vial: 2 ml

calcium carbonate (C)(OTC)(G)

Rolaids chew 2 tabs bid; max 14 tabs/day

Tab: calcium carbonate: 550 mg

Rolaids Extra Strength chew 2 tabs bid; max 8 tabs/day

*Tab*: 1,000 mg

Tums chew 2 tabs bid; max 16 tabs/day

Tab: 500 mg

Tums Extra Strength chew 2 tabs bid; max 10 tabs/day

Tab: 750 mg

Tums Ultra chew 2 tabs bid; max 8 tabs/day

Tab: 1,000 mg

Os-Cal 500 (OTC) 1-2 tab bid-tid

Tab: elemental calcium carbonate 500 mg

calcium carbonate/vitamin D (C)(G)

Os-Cal 250+D (OTC) 1-2 tabs tid

Tab: elemental calcium carbonate 250 mg/vit d 125 IU

Os-Cal 500+D (OTC) 1-2 tabs bid-tid

Tab: elemental calcium carbonate 500 mg/vit d 125 IU

Viactiv (OTC) 1 tab tid

Chew tab: elemental calcium 500 mg/vit d and vit a 100 IU/Vit k 40 mEq

calcium citrate

Citracal (OTC) 1-2 tabs bid

Tab: elemental calcium citrate 200 mg

 $\triangleright$  calcium citrate/vitamin D(C)(G)

Citracal+D (OTC) 1-2 cplts bid

Cplt: elemental calcium citrate 315 mg/vit d 200 IU

Citracal 250+D (OTC) 1-2 tabs bid

Tab: elemental calcium citrate 250 mg/vit d 62.3 IU

### VITAMIN D ANALOGS

Comment: Concurrent *vitamin D* supplementation is contraindicated for patients taking *calcitriol* or *doxercalciferol* due to the risk of *vitamin D* toxicity. Symptoms of hypervitaminosis D: hypercalcemia, hypercalciuria, elevated creatinine, erythema multiforme, hyperphosphatemia. Maintain adequate daily calcium and fluid intake. Keep serum calcium times phosphate (Ca x P) product below 70. Monitor serum calcium (esp. during dose titration), phosphorus, other lab values (see literature for frequency)

calcitriol (C)(G) <12 years: Predialysis: <3 years: 10-15 ng/kg per day; ≥3 years: initially 0.25 mcg daily; may increase to 0.5mcg daily; Dialysis: not recommended; Hypoparathyroidism: initially 0.25 mcg daily in the AM; may increase by 0.25 mcg day at 2-4 week intervals; usual maintenance: (1-5 years): 0.25-0.75 mcg daily; Pseudohypoparathyroidism: (<6 years): insufficient data, see mfr pkg insert; ≥12 years: Predialysis: initially 0.25 mcg daily; may increase to 0.5mcg daily Dialysis: initially 0.25 mcg daily; may increase by 0.25 mcg daily at 4-8 week intervals; usual maintenance: 0.5-1 mcg daily. Hypoparathyroidism: initially 0.25 mcg q AM; may increase by 0.25 mcg/day at 4-8 week intervals; usual maintenance 0.5-2 mcg/day</p>

Rocaltrol Cap: 0.25, 0.5 mcg

Rocaltrol Solution Soln: 1 mcg/ml (15 ml, single-use dispensers) Comment: calcitriol is indicated for the treatment of secondary hyperparathyroidism and resultant metabolic bone disease in predialysis patients (CrCl 15-55 mL/min), hypocalcemia and resultant metabolic bone disease in

patients on chronic renal dialysis, hypocalcemia in hypoparathyroidism, and pseudohypoparathyroidism.

► doxercalciferol (C)(G) <12 years: not established: >12 years: Dialysis: initially 10 mcg 3 x/week at dialysis; adjust to maintain intact parathyroid hormone (iPTH) between 150-300 pg/mL; if iPTH is not lowered by 50% and fails to reach target range, may increase by 2.5 mcg at 8-week intervals; max 20 mcg 3 x/week; if iPTH <100 pg/mL, suspend for 1 week, then resume at a dose that is at least 2.5 mcg lower; Predialysis: initially 1mcg once daily; may increase by 0.5 mcg at 2 week intervals to target iPTH levels; max 3.5 mcg/day

Hectorol Cap: 0.25, 0.5, 1, 2.5 mcg

Comment: Oral Hectorol is indicated for the treatment of secondary hyperparathyroidism in patients with chronic kidney disease (CKD) on dialysis; Predialysis stage 3 or 4 CKD: use oral form only.

Hectoral Injection <12 years: not recommended; ≥12 years: 4 mcg 3 x weekly after dialysis; adjust dose to maintain intact parathyroid hormone (iPTH) between 150-300 pg/mL; if iPTH is not lowered by 50% and fails to reach target range, may increase by 1-2 mcg at 8 week intervals; max 18 mcg/week; if iPTH <100 pg/mL, suspend for 1 week, then resume at a dose that is at least 1 mcg lower

Vial: 2 mcg/ml (1, 2 ml single dose; 2 ml multidose)

Comment: Hectorol Injection is indicated for the treatment of secondary hyperparathyroidism in patients with chronic kidney disease (CKD) on dialysis.

> paricalcitol (C)(G) <18 years: not established; ≥18 years: administer 0.04-1 mcg/ kg (2.8-7 mcg) IV bolus, during dialysis, no more than every other day; may be increased by 2-4 mcg/dose every 2-4 weeks; monitor serum calcium and phosphorus during dose adjustment periods; if Ca x P >75, immediately reduce dose or discontinue until these levels normalize; discard unused portion of single-use vials immediately

Zemplar Vial: 2, 5 mcg/ml soln for inj

**Comment:** *paricalcitol* is indicated for the prevention and treatment of secondary hyperparathyroidism associated with chronic kidney disease (CKD) stage 5.

### BIOENGINEERED REPLICA OF HUMAN PARATHYROID HORMONE

bioengineered replica of human parathyroid hormone (C) before starting, confirm 25-hydroxyvitamin D stores are sufficient; if insufficient, replace to sufficient levels per standard of care; confirm serum calcium is above 7.5 mg/dL; the goal of treatment is to achieve serum calcium within the lower half of the normal range; administer SC into the thigh once daily; alternate thighs; initially, 50 mcg/day; when initiating, decrease dose of active vitamin D by 50%, if serum calcium is above 7.5 mg/dL; monitor serum calcium levels every 3 to 7 days after starting or adjusting dose and when adjusting either active vitamin D or calcium supplements dose. Abrupt interruption or discontinuation of Natpara can result in severe hypocalcemia. Resume treatment with, or increase the dose of, an active form of vitamin D and calcium supplements. Monitor for signs and symptoms of hypocalcemia and

monitor serum calcium levels, In the case of a missed dose, the next **Natpara** dose should be administered as soon as reasonably feasible and additional exogenous calcium should be taken in the event of hypocalcemia.

Natpara Soln for inj: 25, 50, 75, 100 mcg (2/pkg) multiple dose, dual-chamber glass cartridge containing a sterile powder and diluent

Comment: Natpara is indicated as an adjunct to calcium and vitamin D in patients with hypoparathyroidism. Because of a potential risk of osteosarcoma, use Natpara only in patients who cannot be well-controlled on calcium and active forms of vitamin D alone and for whom the potential benefits are considered to outweigh the potential risk. Avoid use of Natpara in patients who are at increased baseline risk for osteosarcoma, such as patients with Paget's disease of bone or unexplained elevations of alkaline phosphatase, pediatric and patients ≥18 years with open epiphyses, patients with hereditary disorders predisposing to osteosarcoma or patients with a prior history of external beam or implant radiation therapy involving the skeleton. Because of the risk of osteosarcoma, Natpara is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) at www.natparaREMS.com



## **HYPOKALEMIA**

Comment: Normal serum  $K^+$  range is approximately 3.5-5.5 mEq/L. Signs and symptoms of hypokalemia include neuromuscular weakness, muscle twitching and cramping, hyporeflexia, postural hypotension, anorexia, nausea and vomiting, depressed ST segments, flattened T waves, and cardiac tachyarrhythmias. Signs and symptoms of hyperkalemia include peaked T waves, elevated ST segment, and widened QRS complexes.

### **PROPHYLAXIS**

Comment: Usual dose range is 8-10 mEq/day.

# TREATMENT OF HYPOKALEMIA: NON-EMERGENCY (K+<3.5 mEq/L)

**Comment**: Usual dose range 40-120 mEq/day in divided doses. Solutions are preferred; potentially serious GI side effects may occur with tablet formulations <u>or</u> when taken on an empty stomach.

### POTASSIUM SUPPLEMENTS

**Comment**: Potassium supplements should be taken with food. Solutions are the preferred form. Extended-release and sustained-release forms should be swallowed whole; do not crush <u>or</u> chew. Potassium supplementation is indicated for hypokalemia including that caused by diuretic use, and digitalis intoxication without atrioventricular (AV) block.

 $\triangleright$  *potassium* (C)(G) <12 years: not established; ≥12 years:

KCL Solution Oral soln: 10% (30 ml unit dose, 50/case)

K-Dur (as chloride) Tab: 10, 20\* mEq sust-rel

**K-Lor for Oral Solution** (as chloride) *Pkts* for reconstitution: 20 mEq/pkt (fruit)

Klor-Con/25 (as chloride) Pkts for reconstitution: 25 mEq/pkt

**Klor-Con/EF 25** (as bicarbonate) *Pkts* for reconstitution: 25 mEq/pkt (effervescent) (fruit)

Klor-Con Extended-Release (as chloride) Tab: 8, 10 mEq ext-rel

Klor-Con M (as chloride) Tab: 10, 15\*, 20\* mEq ext-rel

**Klor-Con Powder** (as chloride) 20, 25 mEq *Pkts* for reconstitution: (30/carton) (fruit)

Klorvess (as bicarbonate and citrate) Tab: 20 mEq effervescent for solution;

Granules: 20 mEq/pkt effervescent for solution; Oral liq: 20 mEq/15 ml (16 oz) Klotrix (as chloride) Tab: 10 mEq sust-rel

**K-Lyte** (as bicarbonate and citrate) *Tab*: 25 mEq effervescent for solution (lime, orange)

K-Lyte/CL (as chloride) *Tab*: 25 mEq effervescent for solution (citrus, fruit) K-Lyte/CL 50 (as chloride) *Tab*: 50 mEq effervescent for solution (citrus, fruit)

K-Lyte/CL 50 (as chloride) 1ab: 50 mEq effervescent for solution (citrus, fruit K-Lyte/DS (as bicarbonate and citrate) Tab: 50 mEq effervescent for solution

(lime, orange)
K-Tab (as chloride) *Tab*: 10 mEq sust-rel

Micro-K (as chloride) Cap: 8, 10 mEg sust-rel

Potassium Chloride Extended Release Caps Cap: 8, 10 mEq ext-rel

Potassium Chloride Sust-Rel Tabs Tab/Cap: 10 mEq sust-rel Potassium Chloride ER Tab: 8 mEq (600 mg), 10 mEq (750 mg)

## **HYPOMAGNESEMIA**

Comment: Normal serum Mg<sup>++</sup> range is approximately 1.2-2.6 mEq/L. Signs and symptoms of hypomagnesemia include confusion, disorientation, hallucinations, hyperreflexia, tetany, convulsions, tachyarrhythmia, positive Chvostek's sign, and positive Trousseau's sign. Signs and symptoms of hypermagnesemia include drowsiness, lethargy, muscle weakness, hypoactive reflexes, slurred speech, bradycardia, hypotension, convulsions, and cardiac arrhythmias.

### MAGNESIUM SUPPLEMENTS

magnesium (B) <12 years: not established; ≥12 years: 2 tabs daily
 Slow-Mag Tab: 64 mg (as chloride)/110 mg (as carbonate)
</p>

magnesium oxide (B) <12 years: not established; ≥12 years: 1 tab daily Mag-Ox 400 Tab: 400 mg
</p>



# **HYPOPARATHYROIDISM**

### VITAMIN D ANALOGS

**Comment:** Concurrent vitamin D supplementation is contraindicated for patients taking *calcitriol* or *doxercalciferol* owing to the risk of vitamin D toxicity.

calcitriol (C) <12 years: initially 0.25 mcg q AM; may increase by 0.25 mcg/day at 4 to 8 week intervals; usual maintenance 0.5-2 mcg/day; ≥12 years: initially 0.25 mcg daily; may increase by 0.25 mcg/day at 2-4-week intervals; usual maintenance (1-6 years) 0.25-0.75 mcg/day, (≥6 years) 0.5-2 mcg/day</p>

Rocaltrol Cap: 0.25, 0.5 mcg

Rocaltrol Solution Soln: 1 mcg/ml (15 ml, single-use dispensers)

doxercalciferol (C) <12 years: initially 0.25 mcg q AM; may increase by 0.25 mcg/day at 4-8-week intervals; usual maintenance 0.5-2 mcg/day; ≥12 years: initially 0.25 mcg daily; may increase by 0.25 mcg/day at 2-4-week intervals; usual maintenance (1-6 years) 0.25-0.75 mcg/day, (≥6 years) 0.5-2 mcg/day
</p>

Hectorol Cap: 0.25, 0.5 mcg

► teriparatide (C) <12 years: not recommended; ≥12 years: 20 mcg SC daily in the thigh or abdomen; may treat for up to 2 years

Forteo Multidose Pen Multidose pen: 250 mcg/ml (3 ml)

**Comment: Forteo** is indicated for the treatment of osteoporosis in females who are at high risk for fracture and to increase bone mass in males with primary <u>or</u> hypogonadal osteoporosis who are at high risk for fracture.

### BIOENGINEERED REPLICA OF HUMAN PARATHYROID HORMONE

bioengineered replica of human parathyroid hormone (C) <12 years: not established; ≥12 years: initially inject mg IM into the thigh once daily; when initiating, decrease dose of active vitamin D by 50% if serum calcium is above 7.5 mg/dL; monitor serum calcium levels every 3-7 days after starting or adjusting dose and when adjusting either active vitamin D or calcium supplements dose</p>

Natpara Soln for inj: 25, 50, 75, 100 mcg (2/pkg) multiple dose, dual-chamber glass cartridge containing a sterile powder and diluent

**Comment:** Natpara is indicated as an adjunct to calcium and vitamin D in patients with parathyroidism.

# HYPOPHOSPHATASIA (OSTEOMALACIA, RICKETS)

Comment: Hypophosphatasia (HPP) is an inborn error of metabolism marked by abnormally low serum alkaline phosphatase activity and phosphoethanolamine in the urine. It is manifested by osteomalacia in older adolescents and rickets in infants and children. It is most severe in infants under 6 months-of-age. With congenital absence of alkaline phosphatase, an enzyme essential to the calcification of bone tissue, complications include vomiting, growth retardation, and often death in infancy. Surviving children have numerous skeletal abnormalities and dwarfism.

asfotase alfa (NE) 6 mg/kg/week SC, administered as 2 mg/kg or 1 mg/kg 6 x/week; max 9 mg/kg/week SC administered as 3 mg/kg 3 x/week

Strensiq Vial: 18 mg/0.45 ml, 28 mg/0.7 ml, 40 mg/ml, 80 mg/0.8 ml for SC inj, single use (1, 12/carton) (preservative-free)

**Comment: Strensiq** is the first FDA-approved (2015) treatment for perinatal, infantile, and juvenile onset HPP. Prior to the availability of **Strensiq**, there was no effective treatment and patient prognosis was very poor.

# HYPOTENSION: NEUROGENIC, ORTHOSTATIC

### ALPHA-1 AGONIST

midodrine (C)(G) <12 years: not recommended; ≥12 years: 10 mg tid at 3-4-hour intervals; take while upright; take last dose at least 4 hours before bedtime ProAmatine Tab: 2.5\*, 5\*, 10\*mg</p>

### SYNTHETIC AMINO ACID PRECURSOR OF NOREPINEPHRINE

least 3 hours prior to bedtime (to reduce the potential for supine hypertension during sleep); administer with or without; swallow whole; titrate to symptomatic response, in increments of 100 mg tid every 24-48 hours; max 600 mg tid (max total 1,800 mg/day)

Northera Cap: 100, 200, 300 mg

Comment: Northera is indicated for the treatment of orthostatic dizziness, lightheadedness, or feeling about to black out in patients  $\geq 18$  years-ofage with symptomatic neurogenic orthostatic hypotension (NOH) caused by primary autonomic failure (Parkinson's disease [PD], multiple system atrophy [MSA], and pure autonomic failure), dopamine beta-hydroxylase deficiency, and non-diabetic autonomic neuropathy. Effectiveness beyond 2 weeks of treatment has not been established. The continued effectiveness of Northera should be assessed. Administering Northera in combination with other agents that increase blood pressure (e.g., norepinephrine, ephedrine, midodrine, triptans) would be expected to increase the risk for supine hypertension.



# **HYPOTHYROIDISM**

Comment: Take thyroid replacement hormone in the morning on an empty stomach. Start thyroid hormone replacement at 25 mcg/day. Target TSH is 0.4-5.5 mIU/L; target T4 is 4.5-12.5 ng/L. Signs and symptoms of thyroid toxicity include tachycardia, palpitations, nervousness, chest pain, heat intolerance, and weight loss

### **ORAL THYROID HORMONE SUPPLEMENTS**

### **T3**

▶ liothyronine (A) initially 5 mcg/day; may increase by 5 mcg/day every 3-4 days; Cretinism: maintenance dose: <1 year: 20 mcg/day; 1-3 years: 50 mcg/day; >3 years: initially 25 mcg daily; may increase by 25 mcg every 1-2 weeks as needed; usual maintenance 25-75 mcg/day

Cytomel Tab: 5, 25, 50 mcg

### T4

### levothyroxine (A)(G)

Levoxyl <6 months: 8-10 mcg/kg/day; 6-12 months: 6-8 mcg/kg/day; >1-5 years: 5-6 mcg/kg/day; 6-12 years: 4-5 mcg/kg/day; >12 years: initially 25-100 mcg/day; increase by 25 mcg/day q 2-3 weeks as needed; maintenance 100-200 mcg/day

*Tab*: 25\*, 50\* (dye-free), 75\*, 88\*, 100\*, 112\*, 125\*, 137\*, 150\*, 175\*, 200\*, 300\*mcg

Synthroid <6 months: 8-10 mcg/kg/day; 6-12 months: 6-8 mcg/kg/day; >1-5 years: 5-6 mcg/kg/day; 6-12 years: 4-5 mcg/kg/day; >12 years: initially 50 mcg/day; increase by 25 mcg/day q 2-3 weeks as needed; max 300 mcg/day

*Tab*: 25\*, 50\* (dye-free), 75\*, 88\*, 100\*, 112\*, 125\*, 137\*, 150\*, 175\*, 200\*, 300\*mcg

Unithroid 0-3 months: 10-15 mcg/kg/day; 3-6 months: 8-10 mcg/kg/day; 6-12 months: 6-8 mcg/kg/day; 1-5 years: 5-6 mcg/kg/day; 6-12 years: 4-5 mcg/kg/day; >12 years: 2-3 mcg/kg/day; Growth and puberty complete: initially 50 mcg/day; increase by 25 mcg/day q 2-3 weeks as needed; max 300 mcg/day

Tab: 25\*, 50\* (dye-free), 75\*, 88\*, 100\*, 112\*, 125\*, 150\*, 175\*, 200\*, 300\*mcg

### T3/T4 Combination

▶ liothyronine/levothyroxine (A) <6 months: 4.6-6 mcg/kg/day; 6-12 months: 3.6-4.8 mcg/kg/day; >1-5 years: 3-3.6 mcg/kg/day; 6-12 years: 2.4-3 mcg/kg/day; >12 years: 1.2-1.8 mcg/kg/day; Growth and puberty complete: initially 15-30 mg/day; increase by 15 mg/day q 2-3 weeks to target goal; usual maintenance 60-120 mg/day Armour Thyroid Tab Tab: per grain: T3 9 mcg/T4 38 mcg: 1/4, 1/2, 1, 1, 2, 3\*, 4\*, 5\* gr; 15, 30, 60, 90, 120, 180\*, 240\*, 300\*mg

Thyrolar Tab: per grain: T3 12.5 mcg/T4 50 mcg: 1/4, 1/5, 1, 2, 3 gr

### PARENTERAL THYROID HORMONE SUPPLEMENT

▶ levothyroxine sodium (A)(G) <12 years: not recommended; ≥12 years: 1/2 oral dose by IV or IM and titrate; Myxedema Coma: 200-500 mcg IV x 1 dose; may administer 100-300 mcg (or more) IV on second day if needed; then 50-100 mcg IV daily; switch to oral form as soon as possible

T4  $\it Vial: 100, 200, 500 \ mcg \ (pwdr \ for \ IM \ \underline{or} \ IV \ administration \ after \ reconstitution)$ 

# **IDIOPATHIC PULMONARY FIBROSIS (IPF)**

initedanib (D) <12 years: not established; ≥12 years: 150 mg bid, 12 hours apart; max 300 mg/day; take with food at the same time each day</p>

Ofev Cap: 100, 150 mg

Comment: Monitor liver enzymes. If elevated LFTs ( $3 < AST/ALT < 5 \times ULN$ ) without severe liver damage, interrupt therapy or reduce dose to 100 mg bid. When liver enzymes return to baseline, restart at 100 mg bid and titrate up.

Pirfenidone (C) <12 years: not established; ≥12 years: Days 1-7: 1 cap tid; Days 8-14:
 2 caps tid; Days 15 and ongoing: 3 caps tid; max 9 caps/day; take with food at the
 same time each day
</p>

Esbriet Gelcap: 267 mg



# **IMPETIGO CONTAGIOSA (INDIAN FIRE)**

**Comment**: The most common infectious organisms are *Staphylococcus aureus* and *Streptococcus pyogenes*.

### TOPICAL ANTI-INFECTIVES

▶ mupirocin (B)(G) apply to lesions bid; apply to walls of nares bid Bactroban Oint: 2% (22 gm); Crm: 2% (15, 30 gm) Centany Oint: 2% (15, 30 gm)

### **ORAL ANTI-INFECTIVES**

► amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table; ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

**▶** amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms; ≥16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

➤ cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg
divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12
years: 250-500 mg q 8 hours x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

*Tab*: 375, 500 mg ext-rel

cefadroxil <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in a single or 2 divided doses x 10 days Duricef Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml (75, 100 ml) (orange-pineapple)</p>

- > cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 10 days; see page 553 for dose by weight table; >12 years: 200 mg bid x 10 days
- cefprozil (B) ≤6 months: not recommended; 6 months-12 years: 7.5 mg/kg bid x 10 days; see page 554 for dose by weight table; >12 years: 250-500 mg bid or 500 mg daily x 10 days 500 mg bid x 10 days

Cefzil *Tab*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)

ceftaroline fosamil (B) administer by IV infusion after reconstitution every 12 hours x 5-14 days; CrCl >50 mL/min: 600 mg; CrCl >30-<50 mL/min: 400 mg; CrCl >1 5-<30 mL/min: 300 mg; ESRD: 200 mg
</p>

Teflaro Vial: 400, 600 mg

- cefuroxime axetil (B)(G) <12 years: 15 mg/kg bid x 10 days; see page 556 for dose by weight table; ≥12 years: 250-500 mg bid x 10 days</p>
- Ceftin Tab: 250, 500 mg; Oral susp: 12, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

  cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 250-500 mg qid or 500 mg bid x 10 days

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/kg bid x 7 days; see page 558 for dose by weight table; >12 years: 500 mg or 500 mg ext-rel daily x 7 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

dicloxacillin (B)(G) <12 years: 12.5-25 mg/kg/day in 4 divided doses x 10 days; see page 560 for dose by weight table; ≥12 years: 500 mg q 6 hours x 10 days
</p>

Dynapen Cap: 125, 250, 500 mg; Oral susp: 62.5 mg/5 ml (80, 100, 200 ml)

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 7-10 days; ≥45 kg: 250 mg qid, or 333 mg tid, or 500 mg bid x 7-10 days</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 10 days; see page 560 for dose by weight table; ≥12 years: 200 mg bid x 10 days</p>

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

penicillin g (benzathine) (B) <12 years: <60 lb: 300,000-600,000 units IM x 1 dose; ≥60 lb: 900,000 units x 1 dose; ≥12 years: 1.2 million units IM x 1 dose
</p>

Bicillin L-A Cartridge-needle unit: 600,000 units (1 ml); 1.2 million units (2 ml)

- penicilling (benzathine/procaine) (B)(G) <30 lb: 600,000 units IM x 1 dose; 30-60 lb: 900,000-1.2 million units IM x 1 dose; ≥12 years: 2.4 million units IM x 1 dose Bicillin C-R Cartridge-needle unit: 600,000 units (1 ml); 1.2 million units (2 ml); 2.4 million units (4 ml)
- penicillin v potassium (B) <12 years: 25-75 mg/kg day divided q 6-8 hours x 3 days; see page 572 for dose by weight table; ≥12 years: 250-500 mg q 6 hours x 10 days Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)

# INCONTINENCE: FECAL

**Comment:** Treatment of fecal incontinence in patients who have failed conservative therapy (e.g., diet, fiber therapy, antimotility agents).

dextranomer microspheres/sodium hyaluronate (NE) <18 years: not recommended; ≥18 years: Pretreatment: bowel preparation using enema (required) and prophylactic antibiotics (recommended) prior to injection; *Treatment*: inject slowly into the deep submucosal layer in the proximal part of the high pressure zone of the anal canal about 5 mm above the dentate line; 4 x 1 ml injections in the following order: posterior, left lateral, anterior, right lateral; keep needle in place 15-30 seconds to minimize leakage; use a new needle for each syringe and injection site; Post-treatment: avoid hot baths and physical activity during first 24 hours; avoid antidiarrheal drugs, sexual intercourse, and strenuous activity for 1 week; avoid anal manipulation for 1 month; Retreatment: may repeat if needed with max 4 ml, no sooner than 4 weeks after the first injection; point of injection should be made in between initial injection sites (i.e., shifted 1/8 of a turn)

Solesta dex micro 50 mg/sod hyal 15 mg per ml; Syringe: 1 ml (4 w. needles)



# **INCONTINENCE: URINARY (STRESS INCONTINENCE/** OVERACTIVE BLADDER/ATONIC BLADDER)

See Enuresis page 133

> pseudoephedrine (C)(G) 30-60 mg tid

**Sudafed (OTC)** *Tab*: 30 mg; *Liq*: 15 mg/5 ml (1, 4 oz)

### **VASOPRESSIN**

desmopressin acetate (DDAVP) (B)(G)

 $\overrightarrow{DDAVP}$  <6 years: not recommended;  $\geq$ 6 years: 0.5 mg daily or q HS prn;  $\geq$ 12 years: usual dosage 0.1-1.2 mg/day in 2-3 divided doses; 0.2 mg q HS prn for nocturnal enuresis

Tab: 0.1\*, 0.2\*mg

DDAVP Rhinal Tube <6 years: not recommended; ≥6 years: 10 mcg or 0.1 ml of soln each nostril (20 mcg total dose) q HS prn; max 40 mcg total dose Rhinal tube: 0.1 mg/ml (2.5 ml)

### BETA-3 ADRENERGIC AGONIST

ightharpoonup mirabegron (C) <12 years: not established;  $\geq$ 12 years: initially 25 mg once daily; max 50 mg once daily; Severe renal impairment: 25 mg once daily

Myrbetriq Tab: 25, 50 mg ext-rel

### MUSCARINIC RECEPTOR ANTAGONISTS

Fesoterodine (C)(G) <12 years: not recommended; ≥12 years: 4 mg daily; max 8 mg/ day

Toviaz Tab: 4, 8 mg ext-rel

 $\triangleright$  tolterodine tartrate (C)(G) <12 years: not established; ≥12 years: Detrol 2 mg bid; may decrease to 1 mg bid

Tab: 1, 2 mg

Detrol LA 2-4 mg once daily

Cap: 2, 4 mg ext-rel

### ANTISPASMODIC/ANTICHOLINERGICS

*darifenacin* (C) <12 years: not recommended; ≥12 years: not recommended; ≥12 years: 7.5-15 mg daily with liquid; max 15 mg/day

Enablex Tab: 7.5, 15 mg ext-rel

 $\triangleright$  dicyclomine (B)(G) <12 years: not recommended;  $\ge$ 12 years: 10-20 mg qid Bentyl Tab: 20 mg; Cap: 10 mg; Syr: 10 mg/5 ml (16 oz)

► flavoxate (B) <12 years: not recommended; ≥12 years: 100-200 mg tid-qid Urispas Tab: 100 mg

hyoscyamine (C)(G)

Anaspaz <2 years: not recommended; 2-12 years: 0.0625-0.125 mg q 4 hours prn; max 0.75 mg/day; >12 years; 1-2 tabs q 4 hours prn; max 12 tabs/day Tab: 0.125\*

Levbid <12 years: not recommended; ≥12 years: 1-2 tabs q 12 hours prn; max 4 tabs/dav

Tab: 0.375\*mg ext-rel

Levsin <6 years: not recommended; 6-12 years: 1 tab q 4 hours prn; >12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day

Tab: 0.125\*mg;

Levsin Drops <12 years: 3.4 kg: 4 drops q 4 hours prn; max 24 drops/day; 5 kg: 5 drops q 4 hours prn; max 30 drops/day; 7 kg: 6 drops q 4 hours prn; max 36 drops/day; 10 kg: 8 drops q 4 hours prn; max 40 drops/day; ≥12 years: 1-2 ml q 4 hours prn; max 60 ml/day

Oral drops: 0.125 mg/ml (15 ml) (orange) (alcohol 5%)

Levsin Elixir <12 years: <10 kg: use drops; 10-19 kg: 1.25 ml q 4 hours prn; 20-39 kg: 2.5 ml q 4 hours prn; 40-49 kg: 3.75 ml q 4 hours prn; ≥50 kg: 5 ml q 4 hours prn; ≥12 years: 5-10 ml q 4 hours prn

Elix: 0.125 mg/5 ml (16 oz) (orange) (alcohol 20%)

Levsinex SL <2 years: not recommended; 2-12 years: 1 tab q 4 hours; max 6 tabs/day; >12 years:

Tab: 0.125 mg sublingual; ≥12 years: 1-2 tabs q 4 hours SL or PO; max 12 tabs/day

Levsinex Timecaps <2 years: not recommended; 2-12 years: 1 cap q 12 hours; max 2 caps/day; >12 years: 1-2 caps q 12 hours; may adjust to 1 cap q 8 hours Cap: 0.375 mg time-rel

NuLev <2 years: not recommended; 2-12 years: dissolve 1 tab on tongue, with or without water, q 4 hours prn; max 6 tabs/day; >12 years: dissolve 1-2 tabs on tongue, with or without water, q 4 hours prn; max 12 tabs/day

*ODT*: 0.125 mg (mint; phenylalanine)

### > oxybutynin chloride (B)

Ditropan <5 years: not recommended; 5-12 years: 5 mg bid; max 15 mg/day; >12 years: 5 mg bid-tid; max 20 mg/day

*Tab*: 5\*mg; *Syr*: 5 mg/5 ml

**Ditropan XL** <6 years: not recommended;  $\geq$ 6 years: initially 5 mg once daily; may increase weekly in 5 mg increments as needed; max 20 mg/day;  $\geq$ 12 years: initially 5 mg daily; may increase weekly in 5 mg increments as needed; max 30 mg/day

*Tab*: 5, 10, 15 mg ext-rel

GelniQUE 3 mg Pump: <6 years: not recommended; ≥6 years: apply 3 pumps (84 mg) once daily to clean dry intact skin on the abdomen, upper arm, shoulders, or thighs; rotate sites; wash hands; avoid washing application site for 1 hour after application

Gel: 3% (92 g, metered pump dispenser) (alcohol)

GelniQUE 1 gm Sachet: <6 years: not recommended; ≥6 years: apply 1 gm gel (1 sachet) once daily to dry intact skin on abdomen, upper arms/shoulders, or thighs; rotate sites; wash hands; avoid washing application site for 1 hour after application

Gel: 10%, 1 gm/sachet (30/carton) (alcohol)

Oxytrol Transdermal Patch (OTC) <12 years: not established; ≥12 years: apply patch to clean dry area of the abdomen, hip, or buttock; one patch twice weekly; rotate sites

Transdermal patch: 3.9 mg/day

propantheline (C) <12 years: not recommended; ≥12 years: 15-30 mg tid Pro-Banthine Tab: 7.5, 15 mg

Solifenacin (C)(G) <12 years: not recommended; ≥12 years: 5-10 mg daily VESIcare Tab: 5, 10 mg

trospium chloride (C)(G)

Sanctura <6 years: not recommended; ≥6 years: 20 mg twice daily; ≥75 years:  $CrCl \le 30 \ mL/min$ : 20 mg once daily

Tab: 20 mg

Sanctura XR <6 years: not recommended; ≥6 years: 60 mg daily in the morning Cap: 60 mg ext-rel

Comment: Take trospium chloride on an empty stomach.

### OVERFLOW INCONTINENCE/ATONIC BLADDER

bethanechol (C) <12 years: not recommended; ≥12 years: 10-30 mg tid Urecholine Tab: 5, 10, 25, 50 mg



# **INFLUENZA (FLU)**

Comment: With the exception of Flucelvax, flu vaccine is contraindicated with allergy to egg or chicken proteins, or egg products. All flu vaccines are contraindicated with allergy to latex, active infection, acute respiratory disease, active neurological disorder; history of Guillain-Barre syndrome. Have epinephrine 1:1,000 on hand. Flu vaccine is contraindicated for children under 18 years-of-age who are taking aspirin and/or an aspirin-containing product due to the risk of developing Reye's syndrome. Under 1 year of age, administer flu vaccine in the deltoid. Flu vaccine formulations change annually. Administer flu vaccine 1 month before flu season. Spray may be administered earlier.

### PROPHYLAXIS (NASAL SPRAY)

trivalent, live attenuated influenza vaccine, types a and b (C) ≤5 years: not recommended; ≥5 years: 1 spray each nostril

Never vaccinated with FluMist: 5-8 years: 2 divided doses 46-74 days apart.

Previously vaccinated with FluMist: 5-8 years: 1 spray each nostril

FluMist Nasal Spray 0.5 ml spray annually

Nasal spray: 0.5 ml (0.25 ml/spray) (10/carton) (preservative-free)

## PROPHYLAXIS (INJECTABLE)

quadrivalent inactivated influenza subvirion vaccine, types a and b (C) <3 years:
 not recommended; ≥3 years: 0.5 ml IM annually
</p>

Fluarix Quadrivalent Prefilled syringes: 0.5 ml (10/carton; preservative-free, latex-free)

> trivalent inactivated influenza subvirion vaccine, types A and B

Afluria (B) <5 years: not recommended; 5-8 years: 1-2 doses/season at least 4 weeks apart; >9 years: 1 dose/season

Comment: Contraindicated with allergy to egg or chicken protein, neomycin, polymyxin, or history of life-threatening reaction to any previous fly vaccine.

Fluarix (B) 0.5 ml IM annually; <3 years: not recommended; 3-9 years (previously unvaccinated or vaccinated for the first time last season with one dose of flu vaccine): 2 doses per season at least 1 month apart; 3-9 years (previously vaccinated with two doses of flu vaccine); and >9 years: 1 dose per season

*Prefilled syringe*: 0.5 ml single dose (5/carton) (may contain trace amounts of hydrocortisone, gentamicin; preservative-free)

**Comment:** Contraindicated with allergy to egg protein.

Flublok <18 years: not recommended; ≥18 years: 0.5 ml IM in the deltoid annually Vial: 0.5 ml single dose (10/carton) (preservative-free, egg protein-free, antibiotic-free, latex-free)

Comment: Flublok is a cell culture-derived vaccine and, therefore, is an alternative to the traditional egg-based vaccines. Contains 3 times the amount of active ingredient in traditional flu vaccines

Flucelvax <18 years: not established; ≥18 years: 0.5 ml IM annually Prefilled syringes: 0.5 ml (10/carton; preservative-free, latex-free)

**Comment:** Flucelvax is a cell culture-derived vaccine and, therefore, is an alternative to the traditional egg-based vaccines.

**FluLaval** (C) <3 years: not established; 3-8 years, *never received the vaccine*: 2 doses/season administered at least 4 weeks apart; 3-8 years, *vaccinated in a previous season*: 1-2 doses/season administered at least 4 weeks apart; ≥9 years: one dose/season; a single dose is 0.5 ml; all ages, administer IM in the deltoid

Vial: 5 ml multi-dose (10 doses)

Comment: Contraindicated with allergy to egg protein.

FluShield <6 months: not recommended; Never vaccinated: <9 years: 2 doses at least 4 weeks apart; 9-12 years: same as adult; Previously vaccinated: 6-35 months: 0.25 ml IM x 1 dose; 3-8 years: 0.5 ml IM annually

Fluzone 0.5 ml IM annually

Vial: 5 ml (thimerosal)

**Comment:** Contraindicated with allergy to egg protein, or history of life-threatening reaction to any previous flu vaccine.

Fluzone Preservative-Free: Adult Dose <6 months: not recommended; Not previously vaccinated: 6 months-8 years: 0.25 ml IM; repeat in 1 month; Previously vaccinated: 6-35 months: 0.25 ml IM x 1 dose; ≥3 years: 0.5 ml IM annually Prefilled syringe: 0.5 ml (10/carton) (preservative-free, trace thimerosal)

Fluzone Preservative-Free: Pediatric Dose <6 months: not recommended; Not previously vaccinated: 6 months-8 years: 0.25 ml IM; repeat in 1 month; Previously vaccinated: 6-35 months: 0.25 ml IM x 1 dose; ≥3 years: 0.5 ml IM (use Fluzone for Adult). All ages: administer in the deltoid

*Prefilled syringe*: 0.5 ml (10/carton; preservative-free; trace thimerosal) **Comment**: Contraindicated with allergy to egg protein, or history of lifethreatening reaction to any previous flu vaccine.

### PROPHYLAXIS AND TREATMENT

### **Neuraminidase Inhibitors**

Comment: Effective for influenza type A and B. Indicated for treatment of uncomplicated acute illness in patients who have been symptomatic for no more than 2 days; therefore, start within 2 days of symptom onset  $\underline{or}$  exposure. Indicated for influenza prophylaxis in patients  $\geq 3$  months of age.

▶ oseltanivir phosphate (C)(G) Prophylaxis: <1 year: not recommended; 1-12 years: <15 kg: 30 mg once daily x 10 days; 16-23 kg: 45 mg once daily x 10 days; 24-40 kg: 60 mg once daily x 10 days; >40 kg: 75 mg daily for at least 7 days and up to 6 weeks for community outbreak; Treatment: <1 year: not recommended; 1-12 years: <15 kg: 30 mg bid x 5 days; 16-23 kg: 45 mg bid x 5 days; 24-40 kg: 60 mg bid x 5 days; >40 kg: 75 mg bid x 5 days; initiate treatment only if symptomatic <2 days</p>

Tamiflu Čap: 30, 45, 75 mg; Oral susp: 6 mg/ml pwdr for reconstitution (60 ml w. oral dispenser) (tutti-frutti)

Comment: Tamiflu is effective for influenza type A and B.

Zanamivir (C) <7 years: not recommended; ≥7 years: 2 inhalations (10 mg) bid x 5 days
</p>

Relenza Inhaler Inhaler: 5 mg/inh blister; 4 blisters/Rotadisk (5 Rotadisks/carton w. 1 inhaler)

**Comment: Relenza Inhaler** is effective for influenza type A and B. Use caution with asthma.

Antipyretics see Fever page 138

# INSEC

# **INSECT BITE/STING**

### TOPICAL ANESTHETIC

lidocaine 3% cream (B) apply bid-tid prn; reduce dosage commensurate with age, body weight, and physical condition

LidaMantle Crm: 3% (1 oz)

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Topical Corticosteroids see page 494 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498

### OTHER AGENTS

**>** epinephrine (C)(G) <12 years: 0.01 ml/kg SC; ≥12 years: 1:1,000 0.3-0.5 ml

### TETANUS PROPHYLAXIS

▶ *tetanus toxoid* vaccine (C)(G) 0.5 ml IM x 1 dose if previously immunized *Vial*: 5 Lf units/0.5 ml (0.5, 5 ml); *Prefilled syringe*: 5 Lf units/0.5 ml (0.5 ml) (For patients not previously immunized *see Tetanus page* 398)



# **INSOMNIA**

### MELATONIN RECEPTOR AGONIST

ramelteon (C)(IV) <12 years: not recommended; ≥12 years: 8 mg within 30 minutes of bedtime; delayed effect if taken with a meal

Rozerem Tab: 8 mg

### **NON-BENZODIAZEPINES**

eszopiclone (pyrrolopyrazine) (C)(IV)(G) <18 years: not recommended; ≥18 years: 1-3 mg; max 3 mg/day x 1 month; do not take if unable to sleep for at least 8 hours before required to be active again; delayed effect if taken with a meal</p>

Lunesta Tab: 1, 2, 3 mg

Zaleplon (imidazopyridine) (C)(IV) <12 years: not recommended; ≥12 years: 5-10 mg at HS or after going to bed if unable to sleep; do not take if unable to sleep for at least 4 hours before required to be active again; max 20 mg/day x 1 month; delayed effect if taken with a meal
</p>

Sonata Cap: 5, 10 mg (tartrazine)

**Comment: Sonata** is indicated for the treatment of insomnia when a middle-of-the-night awakening is followed by difficulty returning to sleep.

zolpidem oral solution spray (imidazopyridine hypnotic) (C)(IV) <12 years: not recommended; ≥12 years: 2 actuations (10 mg) immediately before bedtime; 
 Debilitated, or hepatic impairment: 2 actuations (5 mg); max 2 actuations (10 mg)
</p>

**ZolpiMist** *Oral soln spray*: 5 mg/actuation (60 metered actuations) (cherry) **Comment**: The lowest dose of *zolpidem* in all forms is recommended for females as drug elimination is slower than in males.

zolpidem tabs (pyrazolopyrimidine hypnotic) (B)(IV)(G) <18 years: not recommended; ≥18 years: 5-10 mg or 6.25-12.5 ext-rel q HS prn; max 12.5 mg/day x 1 month; do not take if unable to sleep for at least 8 hours before required to be active again; delayed effect if taken with a meal
</p>

Ambien Tab: 5, 10 mg

Ambien CR Tab: 6.25, 12.5 mg ext-rel

**Comment:** The lowest dose of *zolpidem* in all forms is recommended for females as drug elimination is slower than in men.

zolpidem sublingual tabs (imidazopyridine hypnotic) (C)(IV) <18 years: not recommended; ≥18 years: dissolve 1 tab under the tongue; allow to disintegrate completely before swallowing; take only once per night and only if at least 4 hours of bedtime remain before planned time for awakening
</p>

Edluar SL Tab: 5, 10 mg

Intermezzo SL Tab: 1.75, 3.5 mg

Comment: Intermezzo is indicated for the treatment of insomnia when a middle-of-the-night awakening is followed by difficulty returning to sleep. The lowest dose of *zolpidem* in all forms is recommended for females as drug elimination is slower than in males.

### **OREXIN RECEPTOR ANTAGONIST**

suvorexant (C)(IV) <12 years: not recommended; ≥12 years: use lowest effective dose; take 30 minutes before bedtime; do not take if unable to sleep for ≥7 hours, max 20 mg
 Belsomra Tab: 5, 10, 15, 20 mg (30/blister pck)
</p>

### **BENZODIAZEPINES**

- estazolam (X)(IV)(G) <18 years: not recommended; ≥18 years: initially 1 mg q HS prn; may increase to 2 mg q HS</p>
  - ProSom Tab: 1\*, 2\*mg
- ▶ flurazepam (X)(IV)(G) < 15 years: not recommended; ≥15 years: 30 mg q HS prn; Debilitated: 15 mg
  - Dalmane Cap: 15, 30 mg
- temazepam (X)(IV)(G) <18 years: not recommended; ≥18 years: 7.5-30 mg q HS
   prn; short term, 7-10 days; max 30 mg; max 1 month
  </p>
  - Restoril Cap: 7.5, 15, 22.5, 30 mg
- triazolam (X)(IV) <18 years: not recommended; ≥18 years: 0.125-0.25 mg q HS
   prn; short term, 7-10 days; max 0.5 mg; max 1 month
   Halcion Tab: 0.125, 0.25\*mg
  </p>

## BENZODIAZEPINES

▶ pentobarbital (D)(II)(G) <12 years: not recommended; ≥12 years: 50 or 100 mg</p>
Nembutal 100 mg q HS prn

Cap: 50, 100 mg

Nembutal Suppository one supp q HS prn; <2 months: not recommended; 2-12 months (10-20 lb): 30 mg supp; >1 year-4 years (21-40 lb): 30 or 60 mg supp; 5-12 years (41-80 lb): 60 mg supp; >12-14 years (81-110 lb): 60 or 120 mg supp; >14 years: 120 or 200 mg supp q HS prn

Rectal supp: 30, 60, 120, 200 mg

# ORAL H1 RECEPTOR AGONIST (1ST GENERATION ANTIHISTAMINE)

doxepin (C) <12 years: not recommended; ≥12 years: 3-6 mg q HS prn; Hepatic impairment, tendency to urinary retention: initially 3 mg
 Silenor Tab: 3, 6 mg
</p>

### ANALGESIC/1ST GENERATION ANTIHISTAMINE COMBINATIONS

≥ acetaminophen/diphenhvdramine (B)

Excedrin PM (OTC) <12 years: not recommended; ≥12 years: 2 tabs q HS prn Tab/Gel tab: acet 500 mg/diphen 38 mg

Tylenol PM (OTC) <12 years: not recommended; ≥12 years: 2 caps q HS prn Tab/Cap/Gel cap: acet 500 mg/diphen 25 mg

Tricyclic Antidepressants see Depression page 99



# INTERSTITIAL CYSTITIS

Comment: Avoid peppers and spicy food, citrus, vinegar, caffeine (e.g., coffee, tea, cola), alcohol, carbonated beverages, and other GU tract irritants.

### MANAGEMENT OF PAIN AND LIBINARY LIBGENCY

Acetaminophen for IV Infusion see Pain page 296

Oral Prescription NSAIDs see page 490

Phenazopyridine (B)(G) 12 years: not recommended; ≥12 years: 95-200 mg q 6 hours prn: max 2 days

AZO Standard, Prodium, Uristat (OTC) Tab: 95 mg

AZO Standard Maximum Strength (OTC) Tab: 97.5 mg

Pyridium, Urogesic Tab: 100, 200 mg phenazopyridine (B)(G) 190-200 mg tid; max 2 days

Azo Standard (OTC) Tab: 95 mg

Azo Standard Maximum Strength (OTC) Tab: 97.5 mg

Pyridium Tab: 100, 200 mg ent-coat

Uristat (OTC) Tab: 95 mg

Urogesic Tab: 100, 200 mg

▶ hyoscyamine (C)(G)

Anaspaz <2 years: not recommended; 2-12 years: 0.0625-0.125 mg q 4 hours prn; max 0.75 mg/day; >12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day Tab: 0.125\*mg

Levbid <12 years: not recommended; ≥12 years: 1-2 tabs q 12 hours prn; max 4 tabs/day

Tab: 0.375\*mg ext-rel

Levsin <6 years: not recommended; 6-12 years: 1 tab q 4 hours prn; ≥12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day

Tab: 0.125\*mg

Levsin Drops <3 kg; not recommended: 3.4 kg; 4 drops q 4 hours prn; max 24 drops/day; 5 kg: 5 drops q 4 hours prn; max 30 drops/day; 7 kg: 6 drops q 4 hours prn; max 36 drops/day; 10 kg: 8 drops q 4 hours prn; max 40 drops/day; >10 kg: 1-2 ml q 4 hours prn; max 60 ml/day

Oral drops: 0.125 mg/ml (15 ml) (orange) (alcohol 5%)

Levsin Elixir < 10 kg: use drops; 10-19 kg: 1.25 ml q 4 hours prn; 20-39 kg: 2.5 ml q 4 hours prn; 40-49 kg: 3.75 ml q 4 hours prn; ≥50 kg: 5 ml q 4 hours prn

Elix: 0.125 mg/5 ml (16 oz) (orange) (alcohol 20%)

Levsinex SL <2 years: not recommended; 2-12 years: 1 tab q 4 hours; max 6 tabs/day; >12 years: 1-2 tabs q 4 hours SL or PO; max 12 tabs/day

SL tab: 0.125 mg

Levsinex Timecaps <2 years: not recommended; 2-12 years: 1 cap q 12 hours; max 2 caps/day; >12 years: 1-2 caps q 12 hours; may adjust to 1 cap q 8 hours Cap: 0.375 mg time-rel

NuLev <2 years: not recommended; 2-12 years: dissolve 1 tab on tongue, with or without water, q 4 hours prn; max 6 tabs/day; >12 years: dissolve 1-2 tabs on tongue, with or without water, q 4 hours prn; max 12 tabs/day

*ODT*: 0.125 mg (mint) (phenylalanine)

methenamine/na phosphate monobasic/phenyl salicylate/methylene blue/hyoscy amine sulfate (C) <6 years: not recommended; ≥6 years: individualize dose (see mfr
 pkg insert)
</p>

Uribel Cap: meth 118 mg/sod phos 40.8 mg/phenyl sal 36 mg/meth blue 10 mg/

hyoscy 0.12 mg

methenamine/phenyl salicylate/methylene blue/benzoic acid/atropine sulfate/hyos-cyamine sulfate (C)(G) <6 years: not recommended; ≥6 years: 2 tabs gid
</p>

Urised Tab: meth 40.8 mg/phenyl sal 18.1 mg/meth blue 5.4 mg/benz acid 4.5 mg/atro sul 0.03 mg/hyoscy 0.03 mg

Comment: Urised imparts a blue-green color to urine which may stain fabrics.

> oxybutynin chloride (B)

Ditropan <5 years: not recommended; 5-12 years: 5 mg bid; max 15 mg/day; ≥12 years: 5 mg bid-tid; max 20 mg/day

*Tab*: 5\*mg; *Syr*: 5 mg/5 ml

**Ditropan XL** <12 years: not recommended; ≥12 years: initially 5 mg daily; may increase weekly in 5 mg increments as needed; max 30 mg/day

Tab: 5, 10, 15 mg ext-rel

pentosan (B) <16 years: not recommended; ≥16 years: 100 mg tid; re-evaluate at 3 and 6 months</p>

Elmiron Cap: 100 mg

### URINARY TRACT ANALGESIA

phenazopyridine (B)(G) <12 years: not recommended; ≥12 years: 95-200 mg q 6 hours prn; max 2 days</p>

AZO Standard, Prodium, Uristat (OTC) Tab: 95 mg

AZO Standard Maximum Strength (OTC) Tab: 97.5 mg

Pyridium, Urogesic Tab: 100, 200 mg

Azo Standard (OTC) Tab: 95 mg

Azo Standard Maximum Strength (OTC) Tab: 97.5 mg

Pyridium Tab: 100, 200 mg ent-coat

Uristat (OTC) Tab: 95 mg

Urogesic Tab: 100, 200 mg

Comment: Phenazopyridine imparts an orange-red color to urine which may stain fabrics.

Propantheline (C) <12 years: not recommended; ≥12 years: 15-30 mg tid Pro-Banthine Tab: 7.5, 15 mg

► tolterodine tartrate (C)(G)

**Detrol** <12 years: not recommended; ≥12 years: 2 mg bid; may decrease to 1 mg bid

Tab: 1, 2 mg

Detrol XL 2-4 mg daily

Cap: 2, 4 mg ext-rel

### ANTICHOLINERGIC/SEDATIVE COMBINATION

chlordiazepoxide/clidinium (D)(IV) <12 years: not recommended; ≥12 years: 1-2 caps ac and HS; max 8 caps/day
</p>

Librax Cap: chlor 5 mg/clid 2.5 mg

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

**Comment:** Co-administration of SSRIs and TCAs requires extreme caution.

- $\triangleright$  amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab: 10, 25, 50, 75, 100, 150 mg
- > amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg a HS)

Tab: 25, 50, 100, 150 mg

- clomitramine (C)(G) <10 years; not recommended; 10-<16 years; initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller;>16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS Anafranil Cap: 25, 50, 75 mg
- $\triangleright$  desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

- ⇒ doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)
- $\triangleright$  *imipramine* (C)(G) <12 years: not recommended; ≥12 years:

Tofranil <12 years: not recommended; ≥12 years: adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg Cap: 75, 100, 125, 150 mg

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tidgid: max 150 mg/day

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

- protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
  - Vivactil Tab: 5, 10 mg
- ► trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day

Surmontil Cap: 25, 50, 100 mg

# INTERTRIGO

Comment: Intertrigo is an irritation and rash secondary to adjacent skin surfaces rubbing together. Treatment is dependent on symptoms and presence of infection. Topical Corticosteroids see page 494

Topical Antifungals see Tinea Corporis page 400

Topical Anti-infectives see Skin Infection: Bacterial page 386

# **IRITIS: ACUTE**

loteprednol etabonate (C) <12 years: not recommended; ≥12 years: 1-2 drops qid; may increase to 1 drop hourly as needed

Lotemax Ophthalmic Solution Ophth soln: 0.3% (2.5, 5, 10, 15 ml)

prednisone acetate (C) <12 years: not recommended; ≥12 years: 1 drop q 1 hour x 24-48 hours, then 1 drop q 2 hours while awake x 24-48 hours, then 1 drop bid-qid until resolved

Pred Forte Ophth soln: 1% (1, 5, 10, 15 ml)

# **IRON OVERLOAD**

### IRON CHELATING AGENTS

Deferasirox (tridentate ligand) (C)(G) <2 years: not recommended; ≥2 years: initially 20 mg/kg/day; titrate; may increase 5-10 mg/kg q 3-6 months based on serum ferritin trends; max 30 mg/kg/day
</p>

Exjade Tab for oral soln: 125, 250, 500 mg Jadenu Tab: 90, 180, 360 mg film-coat

Comment: *deferasirox* is an orally active chelator selective for iron. It is indicated for the treatment of chronic iron overload due to blood transfusions (transfusional hemosiderosis). Monitor serum ferritin monthly. Consider interrupting therapy if serum ferritin falls below 500 mcg/L. Take *deferasirox* (Jadenu, Exjade) on an empty stomach. Completely disperse tablet(s) for oral solution in 3.5 oz liquid if dose is  $\leq 1$  gm or 7 oz liquid if dose is  $\geq 1$  gm.

succimer (C) <12 years: not recommended; ≥12 years: initially 10 mg/kg q 8
 hours x 5 days; then, reduce frequency to every 12 hours x 14 more days; allow
 at least 14 days between courses unless blood lead levels indicate need for
 prompt treatment
</p>

Chemet Cap: 100 mg

Comment: Chemet is indicated for the treatment of lead poisoning when blood lead level 45 mcg/dL. Treatment for more than 3 consecutive weeks is not recommended. Monitor hydration, renal, and hepatic function.



# IRRITABLE BOWEL SYNDROME WITH CONSTIPATION (IBS-C)

Bulk-Producing Agents, Laxatives, Stool Softeners see Constipation page 87

### **GUANYLATE CYCLASE-C AGONIST**

▶ linaclotide (C) <6 years: not recommended; 6-17 years: avoid; >17 years: 290 mcg once daily; take on an empty stomach at least 30 minutes before the first meal of the day; swallow whole

Linzess Cap: 72, 145, 290 mcg

Comment: May open Linzess cap and sprinkle on applesauce or in water for administration

▶ lubiprostone (C) <18 years: not recommended; ≥18 years: 8 mcg bid; take with food and water; Severe hepatic impairment (Child-Pugh Class C): 8 mcg once daily Amitiza Cap: 8, 24 mcg</p>



# IRRITABLE BOWEL SYNDROME WITH DIARRHEA (IBS-D)

Bulk-Producing Agents see Constipation page 87

### CONSTIPATING AGENTS

- difenoxin/atropine (C) <12 years: not recommended; ≥12 years: 2 tabs, then 1 tab
   after each loose stool or 1 tab q 3-4 hours as needed; max 8 tab/day x 2 days
   Motofen Tab: difen 1 mg/atro 0.025 mg
  </p>
- eluxadoline (NA)(IV) <12 years: not established; ≥12 years: 100 mg bid; 75 mg bid if unable to tolerate 100 mg, or without a gall bladder, or mild-to-moderate hepatic impairment, or receiving concomitant OATP1B1 inhibitors</p>

Viberzi 4 mg initially, then 2 mg after each loose stool; max 16 mg/day *Tab*: 75, 100 mg film-coat

Comment: *eluxadoline* is a mu-opioid receptor agonist. It is contraindicated with biliary obstruction, Sphincter of Oddi disease or dysfunction, alcohol abuse or addiction, pancreatitis, pancreatic duct obstruction, severe hepatic impairment, and mechanical GI obstruction.

### loperamide (B)(G)

**Imodium (OTC)** <5 years: not recommended;  $\geq$ 5 years: 4 mg initially, then 2 mg after each loose stool; max 16 mg/day

Cap: 2 mg

Imodium A-D (OTC) <2 years: not recommended; 2-5 years (24-47 lb): 1 mg up to tid x 2 days; 6-8 years (48-59 lb): 2 mg initially, then 1 mg after each loose stool; max 4 mg/day x 2 days; 9-11 years (60-95 lb): 2 mg initially, then 1 mg after each loose stool; max 6 mg/day x 2 days;  $\ge$ 12 years: 4 mg initially, then 2 mg after each loose stool; usual max 8 mg/day x 2 days

Cplt: 2 mg; Liq: 1 mg/5 ml (2, 4 oz)

### ▶ loperamide/simethicone (B)(G)

Imodium Advanced (OTC) <6 years: not recommended; 6-8 years: 1 tab chewed after loose stool, then 1/2 after next loose stool; max 2 tabs/day; 9-11 years: 1 tab chewed after loose stool, then 1/2 after next loose stool; max 3 tabs/day; ≥12 years: 2 tabs chewed after loose stool, then 1 after the next loose stool; max 4 tabs/day Chew tab: lop 2 mg/sim 125 mg

### 5-HT3 RECEPTOR ANTAGONIST

alosetron (B)(G) <12 years: not recommended; ≥12 years: initially 0.5 mg bid; may increase to 1 mg bid after 4 weeks if starting dose is tolerated but inadequate Lotronex Tab: 0.5, 1 mg</p>

### ANTISPASMODIC/ANTICHOLINERGIC COMBINATIONS

 dicyclomine (B)(G) <12 years: not recommended; ≥12 years: initially 20 mg bidqid; may increase to 40 mg qid PO; usual IM dose 80 mg/day divided qid; do not use IM route for more than 1-2 days Bentyl Tab: 20 mg; Cap: 10 mg; Syr: 10 mg/5 ml (16 oz); Vial: 10 mg/ml (10 ml); Amp: 10 mg/ml (2 ml)

methscopolamine bromide (B) <12 years: not recommended; ≥12 years: 1 tab q 6 hours prn
</p>

Pamine *Tab*: 2.5 mg Pamine Forte *Tab*: 5 mg

### ANTICHOLINERGICS

► hyoscyamine (C)(G)

Anaspaz <2 years: not recommended; 2-12 years: 0.0625-0.125 mg q 4 hours prn; max 0.75 mg/day; >12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day Tab: 0.125\*mg

Levbid <12 years: not recommended; ≥12 years: 1-2 tabs q 12 hours prn; max 4 tabs/day

Tab: 0.375\*mg ext-rel

Levsin <6 years: not recommended; 6-12 years: 1 tab q 4 hours prn; >12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day

*Tab*: 0.125\*mg

Levsinex SL <2 years: not recommended; 2-12 years: 1 tab q 4 hours; max 6 tabs/day; >12 years: 1-2 tabs q 4 hours SL or PO; max 12 tabs/day

Tab: 0.125 mg sublingual

Levsinex Timecaps <2 years: not recommended; 2-12 years: 1 cap q 12 hours; max 2 caps/day; >12 years: 1-2 caps q 12 hours; may adjust to 1 cap q 8 hours *Cap*: 0.375 mg time-rel

NuLev <2 years: not recommended; 2-12 years: dissolve 1 tab on tongue, with or without water, q 4 hours prn; max 6 tabs/day; >12 years: dissolve 1-2 tabs on tongue, with or without water, q 4 hours prn; max 12 tabs/day

ODT: 0.125 mg (mint; phenylalanine)

► simethicone (C)(G) 0.3 ml gid pc and HS

Mylicon Drops (OTC) Oral drops: 40 mg/0.6 ml (30 ml)

 $\blacktriangleright phenobarbital/hyoscyamine/atropine/scopolamine~(C)(IV)(G)$ 

Donnatal <12 years: not recommended; ≥12 years: 1-2 tabs ac and HS *Tab: pheno* 16.2 mg/hyo 0.1037 mg/atro 0.0194 mg/scop 0.0065 mg

Donnatal Elixir <12 years: not recommended;  $\ge$ 12 years: 1-2 tsp ac and HS 20 lb: 1 ml q 4 hours or 1.5 ml q 6 hours; 30 lb: 1.5 ml q 4 hours or 2 ml q 6 hours; 50 lb: 1/2 tsp q 4 hours or 3/4 tsp q 6 hours; 75 lb: 3/4 tsp q 4 hours or 1 tsp q 6 hours; 100 lb: 1 tsp q 4 hours or 1 tsp q 6 hours

Elix: pheno 16.2 mg/hyo 0.1037 mg/atro 0.0194 mg/scop 0.0065 mg per 5 ml (4. 16 oz)

Donnatal Extentabs <12 years: not recommended; ≥12 years: 1 tab q 12 hours Tab: pheno 48.6 mg/hyo 0.3111 mg/atro 0.0582 mg/scop 0.0195 mg ext-rel

### ANTICHOLINERGIC/SEDATIVE COMBINATION

Chlordiazepoxide/clidinium (D)(IV) <12 years: not recommended; ≥12 years: 1-2 caps ac and HS: max 8 caps/day
</p>

Librax Cap: chlor 5 mg/clid 2.5 mg

### TRICYCLIC ANTIDEPRESSANTS (TCAS)

**Comment**: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab: 10, 25, 50, 75, 100, 150 mg
- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)
  </p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

**Anafranil** *Cap*: 25, 50, 75 mg

→ desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

Description (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day
 day
</p>

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg

Cap: 75, 100, 125, 150 mg

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
</p>

Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg



# JUVENILE IDIOPATHIC ARTHRITIS (JIA), POLYARTICULAR JUVENILE IDIOPATHIC ARTHRITIS (PJIA), SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS (SJIA)

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488

### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0, 075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

### **ORAL SALICYLATES**

indomethacin (C) <14 years: usually not recommended; >2 years, if risk warranted: 1-2 mg/kg/day in divided doses; max 3-4 mg/kg/day (or 150-200 mg/day, whichever is less); <14 years, ER cap not recommended; ≥14 years: initially 25 mg bid or tid, increase as needed at weekly intervals by 25-50 mg/day; max 200 mg/day</p>

Cap: 25, 50 mg; Susp; 25 mg/5 ml (pineapple-coconut, mint) (alcohol 1%); Supp: 50 mg; ER Cap: 75 mg ext-rel

Comment: *indomethacin* is indicated only for acute painful flares. Administer with food <u>and/or</u> antacids. Use lowest effective dose for shortest duration.

methotrexate (X) < 2 years: not recommended; 2-12 years: 10 mg/m² once weekly; max 20 mg/m²; > 12 years: 7.5 mg x 1 dose per week or 2.5 mg x 3 at 12 hour intervals once a week; max 20 mg/week; therapeutic response begins in 3-6 weeks; administer methotrexate injection SC only into the abdomen or thigh

Rasuvo Autoinjector: 7.5 mg/0.15 ml, 10 mg/0.20 ml, 12.5 mg/0.25 ml, 15 mg/0.30 ml, 17.5 mg/0.35 ml, 20 mg/0.40 ml, 22.5 mg/0.45 ml, 25 mg/0.50 ml, 27.5 mg/0.55 ml, 30 mg/0.60 ml (solution concentration for SC injection is 50 mg/ml) Rheumatrex *Tab:* 2.5\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit dose pack) Trexall *Tab:* 5\*, 7.5\*, 10\*, 15\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit dose pack)

Comment: *methotrexate* (MTX) is contraindicated with immunodeficiency, blood dyscrasias, alcoholism, and chronic liver disease.

### Interleukin-6 Receptor Antagonist

▶ tocilizumab (B) <2 years: not recommended; ≥2 years: weight-based dosing according to SJIA: ≥30 kg: 8 mg/kg SC every 2 weeks; <30 kg: 12 mg/kg SC every 2 weeks; IV Infusion: administer over 1 hour; do not administer as bolus or IV push; PJIA, and SJIA, ≥30 kg: dilute to 100 mL in 0.9% or 0.45% NaCl. PJIA and SJIA, <30 kg: dilute to 50 mL in 0.9% or 0.45% NaCl; ≥18 years: whether used in combination with DMARDs or as monotherapy, the recommended IV infusion starting dose is 4 mg/kg IV every 4 weeks followed by an increase to 8 mg/kg IV every 4 weeks based on clinical response; Max 800 mg per infusion in RA patients; SC Administration: ≥100 kg: 162 mg SC once weekly on the same day; <100 kg: 162 mg SC every other week on the same day followed by an increase according to clinical response

Actemra Vial: 80 mg/4 ml, 200 mg/10 ml, 400 mg/20 ml, single-use, for IV infusion after dilution; Prefilled syringe: 162 mg (0.9 ml, single-dose)

**Comment**: *tocilizumab* is an interleukin-6 receptor-α inhibitor indicated for use in moderate-to-severe rheumatoid arthritis (RA) that has not responded to conventional therapy, and also for some subtypes of juvenile idiopathic arthritis (JIA). Actemra may be used alone or in combination with *methotrexate* and in RA, other DMARDs may be used. Monitor patient for dose related laboratory changes including elevated LFTs, neutropenia, and thrombocytopenia. Actemra should not be initiated in patients with an absolute neutrophil count (ANC) below 2000 per mm3, platelet count below 100,000 per mm3, or who have ALT or AST above 1.5 times the upper limit of normal (ULN). Registration in the Pregnancy Exposure Registry (1-877-311-8972) is encouraged for monitoring pregnancy outcomes in women exposed to Actemra during pregnancy. The limited available data with Actemra in pregnant women are not sufficient to determine whether there is a drug-associated risk for major birth defects and miscarriage. Monoclonal antibodies, such as tocilizumab, are actively transported across the placenta during the third trimester of pregnancy and may affect immune response in the infant exposed *in utero*. It is not known whether *tocilizumab* passes into breast milk; therefore, breastfeeding is not recommended while using Actemra.



# **JUVENILE RHEUMATOID ARTHRITIS (JRA)**

Acetaminophen for IV Infusion see Pain page 296

Oral Prescription NSAIDs see page 490

Other Oral Analgesics see Pain page 298

Topical/Transdermal NSAIDs see Pain page 298

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

Topical Analgesic and Anesthetic Agents see page 488

Juvenile Idiopathic Arthritis (JIA), Polyarticular Juvenile Idiopathic Arthritis (PJIA), Systemic Juvenile Idiopathic Arthritis see page 242

### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0,075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

### **ORAL SALICYLATE**

indomethacin (C) <14 years: usually not recommended; ≥2 years, if risk warranted: 1-2 mg/kg/day in divided doses; max 3-4 mg/kg/day (or total 150-200 mg/day, whichever is less); ≤14 years, ER cap not recommended; ≥14 years: initially 25 mg bid-tid, increase as needed at weekly intervals by 25-50 mg/day; max 200 mg/day

Cap: 25, 50 mg; Susp: 25 mg/5 ml (pineapple-coconut, mint; alcohol 1%); Supp: 50 mg; ER Cap: 75 mg ext-rel

Comment: *indomethacin* is indicated only for acute painful flares. Administer with food and/or antacids. Use lowest effective dose for shortest duration.

▶ methotrexate (X) <2 years: not recommended; 2-12 years: 10 mg/m² once weekly; max 20 mg/m²; >12 years: 7.5 mg x 1 dose per week or 2.5 mg x 3 at 12-hour intervals once a week; max 20 mg/week; therapeutic response begins in 3-6 weeks; administer methotrexate injection SC only into the abdomen or thigh

**Rasuvo** *Autoinjector*: 7.5 mg/0.15 ml, 10 mg/0.20 ml, 12.5 mg/0.25 ml, 15 mg/0.30 ml, 17.5 mg/0.35 ml, 20 mg/0.40 ml, 22.5 mg/0.45 ml, 25 mg/0.50 ml, 27.5 mg/0.55 ml, 30 mg/0.60 ml (solution concentration for SC injection is 50 mg/ml) **Rheumatrex** *Tab*: 2.5\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit-of-use dose pack)

Trexall *Tab*: 5\*, 7.5\*, 10\*, 15\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit-of-use dose pack)

Comment: *methotrexate* (MTX) is contraindicated with immunodeficiency, blood dyscrasias, alcoholism, and chronic liver disease.

### INTERLEUKIN-6 RECEPTOR ANTAGONIST

tocilizumab (B) <2 years: not recommended; ≥2 years: weight-based dosing according to SJIA: ≥30 kg: 8 mg/kg SC every 2 weeks; <30 kg: 12 mg/kg SC every 2 weeks; IV Infusion: administer over 1 hour; do not administer as bolus or IV push; PJIA, and SJIA, ≥30 kg: dilute to 100 mL in 0.9% or 0.45% NaCl. PJIA and SJIA, <30 kg: dilute to 50 mL in 0.9% or 0.45% NaCl; ≥18 years: whether used in combination with DMARDs or as monotherapy, the recommended IV infusion starting dose is 4 mg/kg IV every 4 weeks followed by an increase to 8 mg/kg IV every 4 weeks based on clinical response; Max 800 mg per infusion in RA patients; SC Administration: ≥100 kg: 162 mg SC once weekly on the same day; <100 kg: 162 mg SC every other week on the same day followed by an increase according to clinical response
</p>

Actemra Vial: 80 mg/4 ml, 200 mg/10 ml, 400 mg/20 ml, single-use, for IV infusion after dilution; *Prefilled syringe*: 162 mg (0.9 ml, single-dose) Comment: *tocilizumab* is an interleukin-6 receptor- $\alpha$  inhibitor indicated for use in moderate-to-severe rheumatoid arthritis (RA) that has not responded to conventional therapy, and also for some subtypes of juvenile idiopathic arthritis (JIA). Actemra may be used alone or in combination with *methotrexate* and in RA, other DMARDs may be used. Monitor patient for dose related laboratory changes including elevated LFTs, neutropenia, and thrombocytopenia. Actemra should not be initiated in patients with an absolute neutrophil count (ANC) below 2000 per mm3, platelet count below 100,000 per mm3, or who have ALT or AST above 1.5 times the upper limit of normal (ULN). Registration in the Pregnancy Exposure Registry (1-877-311-8972) is encouraged for monitoring pregnancy outcomes in women exposed to Actemra during pregnancy. The limited available data with Actemra in pregnant women are not sufficient to determine whether there is a drug-associated risk for major birth defects and miscarriage. Monoclonal antibodies, such as tocilizumab, are actively transported across the placenta during the third trimester of pregnancy and may affect immune response in the infant

exposed *in utero*. It is not known whether *tocilizumab* passes into breast milk; therefore, breastfeeding is not recommended while using **Actemra**.



# KERATITIS/KERATOCONJUNCTIVITIS: HERPES SIMPLEX

- ➢ idoxuridine (C) instill 1 drop q 1 hour during day and every other hour at night or 1 drop every minute for 5 minutes and repeat q 4 hours during day and night Herplex Ophth soln: 0.1% (15 ml)
- trifluridine (C) <6 years: not recommended; ≥6 years: instill 1 drop q 2 hours while awake (max 9 drops/day until re-epithelialization; then 1 drop q 4 hours x 7 more days (at least 5 drops/day); max 21 days
  </p>

Viroptic Ophth soln: 1% (7.5 ml) (thimerosal)

vidarabine (C) <2 years: not recommended; ≥2 years: apply 1/2 inch in lower conjunctival sac 5 times/day q 3 hours until re-epithelialization occurs, then bid x 7 more days</p>

Vira-A Ophth oint: 3% (3.5 gm)



# KERATITIS/KERATOCONJUNCTIVITIS: VERNAL

### OPHTHALMIC MAST CELL STABILIZERS

Comment: Contact lens wear is contraindicated

- ► *cromolyn sodium* (B) <4 years: not recommended; ≥4 years: 1-2 drops 4-6 times/day Crolom, Opticrom *Ophth soln*: 4% (10 ml) (benzalkonium chloride)
- lodoxamide tromethamine (B) <2 years: not recommended; ≥2 years: 1-2 drops qid; max 3 months
  </p>

Alomide Ophth susp: 0.1% (10 ml)



# **LABYRINTHITIS**

► meclizine (B) <12 years: not recommended; ≥12 years: 25 mg tid

Antivert Tab: 12.5, 25, 50\*mg

**Bonine (OTC)** *Cap*: 15, 25, 30 mg; *Tab*: 12.5, 25, 50 mg; *Chew tab/Film-coat tab*: 25 mg

Dramamine II (OTC) Tab: 25\*mg

**Zentrip** *Strip*: 25 mg orally disintegrating

promethazine (C)(G) <2 years: not recommended; 2-12 years 12.5-25 mg q 4-6 hours prn; >12 years: 25-50 mg q 4-6 hours prn

Phenergan Tab: 12.5\*, 25\*, 50 mg; Plain syr: 6.25 mg/5 ml; Fortis syr: 25 mg/5 ml; Rectal supp: 12.5, 25, 50 mg

Comment: *promethazine* is contraindicated in children with uncomplicated nausea, dehydration, Reye's syndrome, history of sleep apnea, asthma, and lower respiratory disorders in children. *Promethazine* lowers the seizure threshold in children, may cause cholestatic jaundice, anticholinergic effects, extrapyramidal effects, and potentially fatal respiratory depression.

Scopolamine (C) <12 years: not recommended; ≥12 years: 1 patch behind ear; each patch is effective for 3 days; apply a new patch on behind the opposite ear every 4th day Transderm Scop Transdermal patch: 1.5 mg (4/carton)</p>

# LACTOSE INTOLERANCE

lactase enzyme (NE) 9,000 FCC units taken with dairy food; adjust based on abatement of symptoms; usual max 18,000 units/dose

Lactaid Drops (OTC) 5-7 drops to each quart of milk and shake gently; may increase to 10-15 drops if needed; hydrolyzes 70%-99% of lactose at refrigerator temperature in 24 hours

*Oral drops:* 1,250 units/5 gtts (7 ml w. dropper)

Lactaid Extra (OTC) Cplt: 4,500 FCC units

Lactaid Fast ACT (OTC) Cplt: 9,000 FCC units; Chew tab: 9,000 FCC units (vanilla twist)

Lactaid Original (OTC) Cplt: 3,000 FCC units

Lactaid Ultra (OTC) Cplt: 9,000 FCC units; Chew tab: 9,000 FCC units (vanilla twist)

# LARVA MIGRANS: CUTANEOUS/VISCERAL

by thiabendazole (C) dosing is bid, is based on weight in pounds, and must be taken with meals; <30 lbs: consult mfr pkg insert; 30 lbs: 250 mg bid; 50 lbs: 500 mg bid; 75 lbs: 750 mg bid; 100 lbs: 1 gm bid; 125 lbs: 1.25 gm bid: ≥150 lbs: 1.5 gm bid; max 3 gm/day; Cutaneous larva migrans: treat x 2 days; Visceral larva migrans: treat x 7 days</p>

Mintezol Chew tab: 500\*mg (orange); Oral susp: 500 mg/5 ml (120 ml) (orange) Comment: thiabendazole is not for prophylaxis. May impair mental alertness.

# LEAD POISONING

Comment: Chelation therapy for lead poisoning requires maintenance of adequate hydration, close monitoring of renal and hepatic function, and monitoring for neutropenia; discontinue therapy at first sign of toxicity. Contraindicated with severe renal disease or anuria.

### CHELATING AGENTS

deferoxamine mesylate (C) <3 months: not recommended; ≥3 months: initially 1 gm IM, followed by 500 mg IM every 4 hours x 2 doses; then repeat every 4-12 hours if needed; max 6 gm/day
</p>

Desferal Vial: 250 mg/ml after reconstitution (500 mg)

▶ edetate calcium disodium (EDTA) (B) administer IM or IV; use IM route of administration for children and overt lead encephalopathy; Serum lead level: 20-70 mcg/dL: 1 gm/m² per day; IV: infuse over 8-12 hours; IM: divided doses q 8-12 hours; Treat for 5 days; then stop for 2-4 days; may repeat if serum lead level is >70 mcg/dL

Calcium Disodium Versenate Amp: 200 mg/ml (5 ml)

succimer (C) <12 months: not recommended; ≥12 months: Serum lead level: >45 mcg/dL: initially 10 mg/kg (or 350 mg/m²) every 8 hours for 5 days; then reduce

frequency to every 12 hours for 14 more days; allow at least 14 days between courses unless serum lead levels indicate a need for more prompt treatment; for more than 3 consecutive weeks not recommended; may swallow caps whole or put contents onto a small amount of soft food or a spoon and swallow, followed by a fruit drink

Chemet Cap: 100 mg

# LEG CRAMPS: NOCTURNAL, RECUMBENCY

Quinine sulfate (C)(G) <16 years: not recommended; ≥16 years: 1 tab or cap q HS
 Qualaquin Tab: 260 mg; Cap: 260, 300, 325 mg
</p>

**Comment**: If hypokalemia is the cause of leg cramps, treat with potassium supplementation (*see page* 222).

# LEISHMANIASIS: CUTANEOUS, MUCOSAL, VISCERAL

Comment: The leishmanial parasite species addressed in this section are: cutaneous leishmaniasis (due to Leishmania braziliensis, Leishmania guyanensis, Leishmania panamensis), mucosal leishmaniasis (due to Leishmania braziliensis), and visceral leishmaniasis (due to Leishmania donovani). The weight-based treatment for adults and adolescents is the same for each of the species, the anti-leishmanial drug *miltefosone* (Impavido). Contraindications to this drug include pregnancy, lactation, and Sjogren-Larsson-Syndrome. The contraindication in pregnancy is due to embryo-fetal toxicity, teratogenicity, and fetal death. Obtain a serum or urine pregnancy test for females of reproductive potential and advise females to use effective contraception during therapy and for 5 months following treatment. Breastfeeding is contraindicated while taking this drug and for 5 months following termination of breastfeeding. Potential ASEs include loss of appetite, abdominal pain, nausea, vomiting, diarrhea, headache, dizziness, pruritis, somnolence, elevated liver transaminases, bilirubin, and serum creatinine and thrombocytopenia. *miltefosine* is associated with impaired fertility in females and males in animal studies. To report a suspected adverse reaction to this drug, call 888-550-6060 or the FDA at 800-FDA-1088 or visit www.fda.gov/medwatch.

miltefosine (D)(G) <12 years, <30 kg (60 lbs): not established: ≥12 years: 30-44 kg: one cap bid x 28 consecutive days; >45 kg: one cap tid x 28 consecutive days; take with a full meal

Impavido Cap: 50 mg

# LISTERIOSIS

erythromycin base (B)(G) <45 kg: 30-40 mg/kg/day in 4 divided doses x 10 days;
 ≥45 kg: 500 mg qid x 10 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml; banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (7.5 ml) (thimerosal)

E.E.S. 400 Tablets Tab: 400 mg



# **LOW BACK STRAIN**

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488



# LYME DISEASE (ERYTHEMA CHRONICUM MIGRANS)

**Comment**: The bite of the deer tick (*Ixodes scapularis*) carries the *Borrelia burgdorferi* organism causing Lyme disease. Proper removal of the tick, and early diagnosis and treatment are essential to effective management of this disease.

### STAGE 1

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

cefuroxime axetil (B)(G) <3 months: not recommended; ≥3 months-12 years: 15 mg/kg bid x 20 days; ≥12 years: 500 mg bid x 20 days</p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/kg bid x 7-14 days; see page 544 for dose by weight table; >12 years: 500 mg bid or 500 mg ext-rel daily x 7-14 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml)

Biaxin XL Tab: 500 mg ext-rel

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses x 14-21 days; ≥8 years, >100 lb: 100 mg bid x 7-14 days; see page 545 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

**Adoxa** *Tab*: 50, 75, 100, 150 mg ent-coat **Doryx** *Tab*: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin *Tab*: 100 mg; *Cap*: 50, 100 mg; *Syr*: 50 mg/5 ml (raspberry-apple) (sulfites): *Oral susp*: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within 2 hours of taking another drug.

minocycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb q 12 hours x 9 more days; ≥8 years, >100 lb: Arestin 200 mg on first day; then 100 mg q 12 hours x 9 more days

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photo-sensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.

betracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses x 7 days; see page 574 for dose by weight table, ≥8 years, >100 lb: 250-500 mg qid ac x 21 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.

# **LYMPHADENITIS**

 $\label{lem:comment:comment:community} \textbf{Comment:} \ \ \textbf{Therapy should continue for no less than 5 days after resolution of symptoms.}$ 

➤ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

**Augmentin ES-600** <3 months: not recommended; ≥3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; *see page* 546 *for dose by weight table*; ≥40 kg: not recommended

Oral susp: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms; ≥16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

- cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 500 mg bid x 10 days</p>
  - Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)
- dicloxacillin (B) <12 years: 12.5-25 mg/kg/day in 4 divided doses x 10 days; see page 560 for dose by weight table; ≥12 years: 500 mg q 6 hours x 10 days
   Dynapen Cap: 125, 250, 500 mg; Oral susp: 62.5 mg/5 ml (80, 100, 200 ml)
  </p>

# LYMPHOGRANULOMA VENEREUM

Comment: The following treatment regimens are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. This section contains treatment regimens for patients ≥18 years only; consult a specialist for treatment of patients < 18 years-of-age. Treatment regimens are presented in alphabetical order by generic drug name, followed by brands and dose forms. Treat all sexual contacts. Persons with both LGV and HIV infection should receive the same treatment regimens as those who are HIV-negative; however, prolonged treatment may be required and delay in resolution of symptoms may occur.

### RECOMMENDED REGIMEN

## Regimen 1

► doxycycline 100 mg bid x 21 days

### ALTERNATIVE REGIMEN

### Regimen 1

erythromycin base (B)(G) 500 mg qid x 21 days or erythromycin ethylsuccinate 400 mg qid x 21 days

### RECOMMENDED REGIMENS FOR THE MANAGEMENT OF SEXUAL CONTACTS

Comment: LGV is caused by *C. trachomatis* serovars L1, L2, or L3. Persons who have had sexual contact with a patient who has LGV within 60 days before onset of the patient's symptoms should be examined, tested for urethral or cervical chlamydial infection, and treated with a chlamydia regimen.

## Regimen 1

*azithromycin* 1 gm in a single dose

## Regimen 2

*doxycycline* 100 mg bid x 7 days

### DRUG BRANDS AND DOSE FORMS

azithromycin (B)(G)

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses; ≥8 years, >100 lb: 40-100 mg bid; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photo-sensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

> erythromycin base (B)(G)

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

rythromycin ethylsuccinate (B)(G)

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

# MALARIA (*PLASMODIUM FALCIPARUM, PLASMODIUM VIVAX*)

Acticlate Tab: 75, 150\*\* mg

**Adoxa** *Tab*: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: doxycycline is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

minocycline (D)(G) Treatment: <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb q 12 hours x 9 more days; ≥8 years, >100 lb: 100 mg daily; Prophylaxis: initiate 1-2 days prior to travel; take during travel; continue for 4 weeks after leaving the endemic area

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

tetracycline (D)(G) Treatment: <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses; see page 574 for dose by weight table; ≥8 years, >100 lb: 250 mg once daily; Prophylaxis: initiate 1-2 days prior to travel; take during travel; continue for 4 weeks after leaving the endemic area

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

### ANTIMALARIALS

p quinine sulfate (C)(G) <16 years: not recommended; ≥16 years: 1 tab or cap every 8 hours x 7 days</p>

Tab: 260 mg; Cap: 260, 300, 325 mg

Qualaquin Cap: 324 mg

Comment: *Qualaquin* is indicated in the treatment of uncomplicated *P. falciparum* malaria (including chloroquine-resistant strains).

atovaquone (C)(G) <12 years: see mfr pkg insert for weight-based dosing table; ≥12 years: take as a single dose with food or a milky drink at the same time each day; repeat dose if vomited within 1 hour; Prophylaxis: 1,500 mg once daily; Treatment: 750 mg bid x 21 days
</p>

Mepron Susp: 750 mg/5 ml (210 ml) (citrus)

atovaquone/proguanil (Č)(G) take as a single dose with food or a milky drink at the same time each day; repeat dose if vomited within 1 hour; Prophylaxis: daily dose starting 1-2 days before entering endemic area, during stay, and for 7 days after return; <5 kg: not recommended; 5-20 kg: 1 ped tab; 21-30 kg: 2 ped tabs; 31-40 kg: 3 ped tabs; ≥40 kg: 1 adult tab; Treatment (acute, uncomplicated): a single dose once daily x 3 days; <5 kg: not recommended; 5-8 kg: 2 ped tabs; 9-10 kg: 3 ped tabs; 11-20 kg: 1 adult tab; 21-30 kg: 2 adult tabs; 31-40 kg: 3 adult tabs; >40 kg: 4 adult tabs

Malarone Tab: atov 250 mg/prog 100 mg

Malarone Pediatric Tab: atov 62.5 mg/prog 25 mg

Comment: *atovaquone* is antagonized by *tetracycline* and *metoclopramide*. Concomitant *rifampin* is not recommended (may elevate LFTs).

chloroquine (C)(G) Prophylaxis: <12 years: 8.35 mg/kg (max 500 mg); ≥12 years: 500 mg; a single dose once weekly (on the same day of each week); start 2 weeks</p>

prior to exposure, continue while in the endemic area, and continue 4 weeks after departure; Treatment: <12 years: initially 16.7 mg/kg (max 1 gm); then 8.35 mg/kg (max 500 mg) 6 hours, 24 hours, and 48 hours after initial dose, or initially 6.25 mg/kg IM; may repeat in 6 hours; max 12.5 mg/kg/day;  $\geq$ 12 years: initially 1 g; then 500 mg 6 hours, 24 hours, and 48 hours after initial dose or initially 200-250 mg IM; may repeat in 6 hours; max 1 gm in first 24 hours; continue to 1.875 gm in 3 days

Aralen *Tab*: 500 mg; *Amp*: 50 mg/ml (5 ml)

▶ *hydroxychloroquine* (C)(G) *Prophylaxis*: <12 years: 6.45 mg/kg (max 400 mg); ≥12 years: 400 mg; dose once weekly(on the same day of each week); start weeks prior to arrival, continue while in endemic area, and continue for 4 weeks after departure; *Treatment*: <12 years: initially 12.9 mg/kg (max 800 mg); then 6.45 mg/kg (max 400 mg) at 6 hours, 24 hours, and 48 hours after initial dose; ≥12 years: initially 800 mg; then 400 mg at 6 hours, 24 hours, and 48 hours after initial dose

Plaquenil Tab: 200 mg

mefloquine (C) Prophylaxis: <6 months: not recommended; ≥6 months-12 years: 3-5 mg/kg (max 250 mg); ≥12 years: 250 mg; dose once weekly (on the same day of each week); start 1 week prior to exposure, continue while in the endemic area, and continue for 4 weeks after departure; Treatment: ≥6 months-12 years: 25-50 mg/kg as a single dose (max 250 mg); ≥12 years: 1,250 mg as a single dose</p>

Lariam Tab: 250\*mg

Comment: *mefloquine* is contraindicated with active <u>or</u> recent history of depression, generalized anxiety disorder, psychosis, schizophrenia <u>or</u> any other psychiatric disorder <u>or</u> history of convulsions.

# **MASTITIS (BREAST ABSCESS)**

### ANTI-INFECTIVES

⇒ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table; ≥40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended; ≥3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table; ≥40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms; ≥16 years: 2 tabs q 12 hours x 7-10 days *Tab*: 1000\*mg ext-rel

cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 250-500 mg q 8 hours x 10 days; max 2 gm/day

Tab: 500 mg; Cap: 250, 500 mg; Susp: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days; (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

Tab: 375, 500 mg ext-rel

ceftriaxone (B)(G) <12 years: 50 mg/kg IM daily; continue 2 days after signs of infection have disappeared; ≥12 years: 1-2 grams IM daily; continue 2 days after signs of infection have disappeared; max 4 gm/day
</p>

Rocephin Vial: 250, 500 mg; 1, 2 g

cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 500 mg bid x 10 days</p>

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

(Strawberry)

clindamycin (B)(G) <12 years: not recommended; ≥12 years: 300 mg tid x 10 days Cleocin Cap: 75 (tartrazine), 150 (tartrazine), 300 mg

Cleocin Pediatric Granules Oral susp: 75 mg/5 ml (100 ml) (cherry)

erythromycin base (B)(G) <45 kg: 30-40 mg/kg/day in 4 divided doses x 10 days;
 ≥45 kg: 250-500 mg qid x 10 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

# MELASMA/CHLOASMA

### SKIN DEPIGMENTING AGENTS

hydroquinone (C) <12 years: not recommended; ≥12 years: apply a thin film to clean dry affected areas bid; discontinue if lightening does not occur after 2 months Lustra Crm: hydro 4% (1, 2 oz) (sulfites)

Lustra AF Crm: hydro 4% (1, 2 oz) (sunscreens, sulfites)

► hydroquinone/fluocinolone acetonide/tretinoin (C) <12 years: not recommended;</p>
≥12 years: apply a thin film to clean dry affected areas once daily at least 30 minutes before bedtime

Tri-Luma Crm: hydro 4%/fluo acet 0.01%/tret 0.05% (30 gm) (sulfites, parabens)

# MENIERE'S DISEASE

diazepam (D)(IV)(G) <6 months: not recommended; ≥6 months: initially 1-2.5 mg tid-qid; may increase gradually
</p>

Diastat Rectal gel delivery system: 2.5 mg

Diastat AcuDial Rectal gel delivery system: 10, 20 mg

Valium Tab: 2\*, 5\*, 10\*mg

Valium Intensol Oral Solution Conc oral soln: 5 mg/ml (30 ml w. dropper) (alcohol 19%)

Valium Oral Solution Oral soln: 5 mg/5 ml (500 ml) (wintergreen spice)

dimenhydrinate (B) <2 years: not recommended; 2-6 years: 12.5-25 mg q 6-8 hours; max 75 mg/day; >6-11 years: 25-50 mg q 6-8 hours; max 150 mg/day; >11 years: 50 mg q 4-6 hours

**Dramamine (OTC)** *Tab*: 50\*mg; *Chew tab*: 50 mg (phenylalanine, tartrazine); *Liq*: 12.5 mg/5 ml (4 oz)

### *▶* diphenhydramine (B)(G)

Benadryl (OTC) <2 years: not recommended; 2-6 years: 6.25 mg q 4-6 hours; max 37.5 mg/day; >6-12 years: 12.5-25 mg q 4-6 hours; max 150 mg/day; >12 years: 25-50 mg q 6-8 hours; max 100 mg/day

Chew tab: 12.5 mg (grape) (phenylalanine); Liq: 12.5 mg/5 ml (4, 8 oz); Cap: 25 mg; Tab: 25 mg; Dye-free soft gel: 25 mg;

Dye-free liq: 12.5 mg/5 ml (4, 8 oz)

### diphenhydramine injectable (B)(G)

Benadryl Injectable <12 years: See mfr pkg insert: 1.25 mg/kg up to 25 mg IM x 1 dose; then q 6 hours prn; ≥12 years: 25-50 mg IM immediately; then q 6 hours prn Vial: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multi-dose); Amp: 10 mg/ml (1 ml); Prefilled syringe: 50 mg/ml (1 ml)

hydroxyzine (C)(G) <6 years: 50 mg/day divided qid; 6-12 years: 50-100 mg/day divided qid; >12 years: 50-100 mg qid; max 600 mg/day

Atarax Tab: 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)

Vistaril Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

### ► meclizine (B)(G)

Antivert <12 years: not recommended;  $\geq$ 12 years: *Tab*: 12.5, 25, 50\*mg; *Amp*: 50 mg/ml (1 ml); *Vial*: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multidose) **Bonine (OTC)** <12 years: not recommended;  $\geq$ 12 years: *Cap*: 15, 25, 30 mg; *Tab*: 12.5, 25, 50 mg; *Chew tab/Film-coat tab*: 25 mg

Dramamine II <12 years: not recommended; ≥12 years: 25 mg bid; max 50 mg/day *Tab*: 25\*mg

**Zentrip** *Strip*: 25 mg orally disintegrating

promethazine (C) <2 years: not recommended; 2-12 years: 0.5 mg/lb or 6.25-25 mg q 4-6 hours PO or rectally; >12 years: 12.5-25 q 4-6 hours PO or rectally

Phenergan Tab: 12.5\*, 25\*, 50 mg; Plain syr: 6.25 mg/5 ml; Fortis syr: 25 mg/5 ml; Rectal supp: 12.5, 25, 50 mg

Comment: *promethazine* is contraindicated in children with uncomplicated nausea, dehydration, Reye's syndrome, history of sleep apnea, asthma, and lower respiratory disorders in children. *Promethazine* lowers the seizure threshold in children, may cause cholestatic jaundice, anticholinergic effects, extrapyramidal effects, and potentially fatal respiratory depression.

scopolamine transdermal patch (C) <12 years: not recommended; ≥12 years: 1 patch behind ear; each patch is effective for 3 days; change patch every 4th day; alternate sides</p>

Transderm Scop Patch: 1.5 mg (4/carton)

# MENINGITIS (NEISSERIA MENINGITIDIS)

### **PROPHYLAXIS**

Comment: Meningitis vaccine is a 3-dose series (0, 2, 6 month schedule) indicated for persons aged ≥10-25 years. Have epinephrine 1:1,000 readily available and monitor for 15 minutes post-dose of meningitis vaccine.

Meningococcal group b vaccine [recombinant, absorbed] <10 years: not established; ≥10 years: 1st dose 0.5 ml IM in the deltoid; 2nd dose 0.5 ml IM 2 months later; 3rd dose 0.5 ml IM 6 months after the first dose;

Bexsero Susp for IM inj: 0.5 ml single-dose prefilled syringes (1, 10/carton)

Trumenba Susp for IM inj: 0.5 ml single-dose prefilled syringes (5, 10/carton)

Neisseria meningitides oligosaccharide conjugate quadrivalent meningococcal vaccine (B) contains Corynebacterium diphtheria CRM197 protein; 10 mcg of Group A + 5 mcg each of Group C, Y, and W-135 + 32.7-64.1 mcg of diphtheria CRM197 protein per 0.5 ml pwdr for reconstitution; <2 months: not established; 2 months: administer 4-dose series at 2, 4, 6, and 12 months; 7-23 months: administer 3-dose series with 2nd dose administered in the 2nd year of life and at least 3 months after the 1st dose; ≥2 years: 0.5 ml IM once; 2-5 years, continued high risk: may administer 2nd dose 2 months after the 1st dose

**Menveo** *Vial multidose:* 5 doses/vial (MenA conjugate component pwdr for reconstitution + 1 vial liquid MenCWY conjugate component for reconstitution) (preservative-free)

➤ Neisseria meningitidis polysaccharides vaccine (C)

Menactra administer in the deltoid only; <9 months: not recommended; *Primary vaccination*: 9-23 months: 0.5 ml administered as a 2-dose series 3 months apart; ≥24 months: 0.5 ml IM once; *Booster vaccination*: ≥15 years: 0.5 ml IM once for those at continued risk if at least 4 years have elapsed since the prior dose

Single-dose prefilled tip-lock syringe: 4 mcg each of group A, C, Y, and W-135 per 0.5 ml soln (preservative-free)

Comment: Latex allergy is a contraindication to Menactra.

Menomune-A/C/Y/W-135 <2 years: not recommended (except ≥3 months of age as short-term protection against group A); ≥2 years: same as adult; if at high risk, may revaccinate children first vaccinated ≤4 years-of-age after 2-3 years (older children after 3-5 years)

Vial (single dose): 50 mcg each of group A, C, Y, and W-135 per 0.5 ml (pwdr for SC inj after reconstitution; preservative-free diluent); Vial (multidose): 50 mcg each of group A, C, Y, and W-130 per 0.5 ml (pwdr for SC inj after reconstitution [10 doses/vial] [thimerosal-preserved diluent])

Comment: Use precaution with latex allergy.



# MENOMETRORRHAGIA: IRREGULAR HEAVY MENSTRUAL BLEEDING/MENORRHAGIA: HEAVY CYCLICAL MENSTRUAL BLEEDING

### ANTIFIBRINOLYTIC AGENT

**▶** tranexamic acid (B)(G) <18 years: not recommended; ≥18 years: 1,300 mg tid; treat for up to 5 days during menses; Normal renal function ( $SCr \le 1.4 \text{ mg/dL}$ ): 1,300 mg tid;  $SCr \ge 1.4 - 2.8 \text{ mg/dL}$ : 1,300 mg bid;  $SCr \ge 2.8 - 5.7 \text{ mg/dL}$ : 1,300 mg once daily;  $SCr \ge 5.7 \text{ mg/dL}$ : 650 mg once daily

Lysteda Tab: 650 mg

### INJECTABLE PROGESTERONE ONLY CONTRACEPTIVES

Combined Oral Contraceptives see page 476

Intrauterine Devices see page 487

medroxyprogesterone (X)(G) Pre-menarche: not applicable; administer IM in the deltoid or hip; do not massage site; administer first dose within 5 days of onset of normal menses, within 5 days postpartum if not breastfeeding, or at 6 weeks

postpartum if breastfeeding exclusively; do not use for >2 years unless other methods are inadequate

Depo-Provera 150 mg deep IM q 3 months

Vial: 150 mg/ml (1 ml)
Prefilled syringe: 150 mg/ml

Depo-SubQ Provera 104 mg SC q 3 months

Prefilled syringe: 104 mg/ml (0.65 ml) (parabens)

**Comment**: Contraindications to injectable progesterone include: thromboembolic disorders, cerebral vascular disease, breast cancer, significant hepatic disease, undiagnosed vaginal bleeding, pregnancy.

# MITRAL VALVE PROLAPSE (MVP)

propranolol (C)(G)

Inderal <12 years: not recommended; ≥12 years: initially 10 mg bid; usual range 160-320 mg/day in divided doses

Tab: 10\*, 20\*, 40\*, 60\*, 80\*mg

Inderal LA <12 years: not recommended; ≥12 years: initially 80 mg daily in a single dose; increase q 3-7 days; usual range 120-160 mg/day; max 320 mg/day in a single dose

Cap: 60, 80, 120, 160 mg sust-rel

InnoPran XL <12 years: not recommended; ≥12 years: initially 80 mg q HS; max 120 mg/day

Cap: 80, 120 mg ext-rel



# **MONONUCLEOSIS (MONO)**

### ANALGESICS

➤ acetaminophen (B) see Fever page 137 Acetaminophen for IV Infusion see page 296 Other Oral Analgesics see Pain page 298

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

prednisone (C) initially 40-80 mg/day, then taper off over 5-7 days

Comment: Corticosteroids recommended in patients with significant pharyngeal



# **MOTION SICKNESS**

dimenhydrinate (B)(OTC) <2 years: not recommended; 2-6 years: 12.5-25 mg; max 75 mg/day; start 1 hour before travel; may repeat q 6-8 hours; 6-11 years: 25-50 mg; max 150 mg/day; start 1 hour before travel; may repeat q 6-8 hours; ≥12 years 50-100 mg q 4-6 hours; start 1 hour before travel; max 400 mg/day
</p>

### Dramamine

Tab: 50\*mg; Chew tab: 50 mg (phenylalanine, tartrazine); Liq: 12.5 mg/5 ml (4 oz)

meclizine (B)(G) 12 years: not recommended; ≥12 years: 25-50 mg 1 hour before travel; may repeat q 24 hours as needed; max 50 mg/day

**Antivert** *Tab*: 12.5, 25, 50\*mg

Bonine (OTC) Cap: 15, 25, 50 mg; Tab: 12.5, 25, 50 mg; Chew tab/Film-coat tab: 25 mg

Dramamine II (OTC) Tab: 25 mg

Zentrip Strip: 25 mg orally-disint

→ prochlorperazine (C)(G) 12 years: not recommended; ≥12 years:

Compazine 5-10 mg q 4 hours prn

Tab: 5 mg; Syr: 5 mg/5 ml (4 oz; fruit); Rectal supp: 2.5, 5, 25 mg

Compazine Spansule 15 mg q AM or 10 mg q 12 hours prn

Spansules: 10, 15 mg sust-rel

promethazine (C)(G) <12 years: not recommended; ≥12 years: 12.5-25 mg 30-60 minutes before travel; may repeat in 8-12 hours</p>

Phenergan Tab:  $12.5^*$ ,  $25^*$ , 50 mg; Plain syr: 6.25 mg/5 ml; Fortis syr: 25 mg/5 ml; Rectal supp: 12.5, 25, 50 mg

Comment: *promethazine* is contraindicated in children with uncomplicated nausea, dehydration, Reye's syndrome, history of sleep apnea, asthma, and lower respiratory disorders in children. *Promethazine* lowers the seizure threshold in children, may cause cholestatic jaundice, anticholinergic effects, extrapyramidal effects, and potentially fatal respiratory depression.

**>** scopolamine (C) <12 years: not recommended; ≥12 years:

Scopace 0.4-0.8 mg 1 hour before travel; may repeat in 8 hours *Tab*: 0.4 mg

Transderm Scop 1 patch behind ear at least 4 hours before travel; each patch is effective for 3 days; apply a new patch on the 4th day on the opposite side Transdermal patch: 1.5 mg (4/carton)

# **MULTIPLE SCLEROSIS (MS)**

### NICOTINIC ACID RECEPTOR AGONIST

dimethyl fumarate (C) <18 years: not recommended; ≥18 years: initially 120 mg bid x 7 days; then maintenance 240 mg bid
</p>

Tecfidera *Cap*: 120, 240 mg del-rel; *Starter Pack*: 14 x 120 mg, 46 x 240 mg Comment: The mechanism by which *dimethyl fumarate* (DMF) exerts its therapeutic effect in multiple sclerosis is unknown. DMF and the metabolite, *monomethyl fumarate* (MMF), have been shown to activate the nuclear factor (erythroid-derived 2)-like 2 (Nrf2) pathway in vitro and in vivo in animals and humans. The Nrf2 pathway is involved in the cellular response to oxidative stress. MMF has been identified as a nicotinic acid receptor agonist in vitro.

### POTASSIUM CHANNEL BLOCKER

**Comment**: *dalfampridine* is indicated to improve walking speed.

### PYRIMIDINE SYNTHESIS INHIBITOR (DMARD)

► teriflunomide (X) <18 years: not recommended; ≥18 years: 7 mg or 14 mg once daily

Aubagio Tab: 7, 14 mg

Comment: Contraindicated with severe hepatic impairment and females of childbearing potential not using reliable contraception. Co-administer *teriflunomide* with the DMARD *leflunomide* (Araya).

### **IMMUNOMODULATORS**

Comment: The role of immunomodulators in the treatment of MS is to slow the progression of physical disability and to decrease frequency of clinical exacerbations.

alemtuzumab (C) <18 years: not recommended; ≥18 years: administer two treatment courses: First treatment course: 12 mg/day x 5 days (total 60 mg); Second treatment course: 12 months later, administer 12 mg/day x 3 days (total 36 mg); complete all immunizations 6 weeks prior to the first treatment; premedicate with 1,000 mg methylprednisolone or equivalent immediately prior to the first 3 treatment days in each treatment course</p>

Lemtrada Vial: 12 mg/1.2 ml soln for IV infusion, single-use vial Comment: Lemtrada is indicated for the treatment of patients with relapsing forms of MS. Because of its safety profile, the use of Lemtrada should generally be reserved for patients who have had an inadequate response to two or more drugs indicated for the treatment of MS. Lemtrada REMS is a restricted distribution program, which allows early detection and management of some of the serious risks associated with its use.

**Comment**: First-dose monitoring for bradycardia. In the first 2 weeks, first-dose monitoring is recommended after an interruption of 1 day <u>or</u> more. During weeks 3 and 4, first-dose monitoring is recommended after an interruption of more than 7 days.

palatiramer acetate (B)(G) <18 years: not recommended; ≥18 years: 20-40 mg SC daily
</p>

Copaxone Prefilled syringe: 20, 40 mg/ml (mannitol, preservative-free)

*interferon beta-1a* (C) <18 years: not recommended; ≥18 years:

**Avonex** 30 mcg IM weekly; rotate sites; may titrate to reduce flu-like symptoms; may use concurrent analgesics/antipyretics on treatment days; *Titration Schedule:* 7.5 mcg week 1; 15 mcg week 2; 22.5 mcg week 3; 30 mcg week 4 and ongoing

*Vial*: 30 mcg/vial pwdr for reconstitution (single dose w. diluent, 4 vials/kit) (albumin [human], preservative-free); *Prefilled syringe*: 30 mcg single dose (0.5 ml) (4/dose pck)

Rebif, administer SC 3x/week (at least 48 hours apart and preferably in the late afternoon or evening); increase over 4 weeks to usual dose 22-44 mcg 3x/week; *Titration Schedule (22 mcg prescribed dose)*: 4.4 mcg weeks 1 & 2; 11 mcg weeks 3 & 4; 22 mcg weeks 5 and ongoing; *Titration Schedule (44 mcg prescribed dose)*: 8.8 mcg weeks 1 & 2; 22 mcg weeks 3 & 4; 44 mcg weeks 5 and ongoing

Prefilled syringe: 22, 44 mcg/0.5 ml w. needle (12/carton) (albumin [human], preservative-free); (titration pack, 6 doses of 8.8 mcg [0.2 ml] w. needle per carton) (albumin [human], preservative-free)

**Comment**: Only prefilled syringes (**Rebif**) can be used to titrate to the 22 mcg prescribed dose. Prefilled syringes <u>or</u> autoinjectors (**Rebif Rebidose**) can be used to titrate to the 44 mcg prescribed dose.

Rebif Rebidose administer SC 3x/week (at least 48 hours apart and preferably in the late afternoon or evening) after titration to 22 mcg or 44 mcg; *Titration Schedule: see* Rebif.

Prefilled autoinjector: 22, 44 mcg/0.5 ml (0.5 ml, 12/carton) (titration pack, 6 doses of 8.8 mcg [0.2 ml] per carton) (albumin [human], preservative-free)

Comment: Only prefilled syringes (Rebif) can be used to titrate to the 22 mcg prescribed dose. Prefilled syringes or autoinjectors (Rebif Rebidose) can be used to titrate to the 44 mcg prescribed dose.

interferon beta-1b (C) <18 years: not recommended; ≥18 years:

Actimmune  $BSA \le 0.5 \ m^2$ : 1.5 mcg/kg SC in a single dose 3 times weekly;  $BSA \ge 0.5 \ m^2$ : 50 mgc/m<sup>2</sup> SC in a single dose 3 times weekly

Vial: 100 mcg/0.5 ml single dose for SC injection

Betaseron, Extavia 0.0625 mg (0.25 ml) SC every other day; increase over 6 weeks to 0.25 mg (1 ml) SC every other day

Vial: 0.3 mg/vial pwdr for reconstitution (single-dose w. prefilled diluents syringes) (albumin [human], mannitol, preservative-free)

natalizumab (C) a <18 years: not recommended; ≥18 years: administer 300 mg
 by IV infusion over 1 hour every 4 weeks; monitor during infusion and for 1 hour
 post-infusion
</p>

Tysabri Vial: 300 mg/15 ml (15 ml)

# **MUMPS (INFECTIOUS PAROTITIS)**

### **PROPHYLAXIS**

▶ measles, mumps, rubella, live, attenuated, neomycin vaccine (C) MMR II 25 mcg SC (preservative-free)

Comment: Contraindications: hypersensitivity to *neomycin* or eggs, primary or acquired immune deficiency, immunosuppressant therapy, bone marrow or lymphatic malignancy, and pregnancy (within 3 months after vaccination).

see Childhood Immunizations page 473 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Antipyretics see Fever page 138



# **MUSCLE STRAIN**

Comment: Usual length of treatment for acute injury is approximately 5 days. Acetaminophen for IV Infusion see Pain page 296 Narcotic Analgesics see Pain page 308

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

### SKELETAL MUSCLE RELAXANTS

baclofen (C)(G) <12 years: not recommended; ≥12 years: 5 mg tid; titrate up by 5 mg every 3 days to 20 mg tid; max 80 mg/day</p>

Lioresal Tab: 10\*, 20\*mg

**Comment**: *baclofen* is indicated for muscle spasm pain and chronic spasticity associated with multiple sclerosis and spinal cord injury <u>or</u> disease. Potential for seizures <u>or</u> hallucinations on abrupt withdrawal.

carisoprodol (C)(G) <12 years: not recommended; ≥12 years: 1 tab tid or qid
 Soma Tab: 350 mg
</p>

► chlorzoxazone (NE)(G) <12 years: not recommended; ≥12 years: 1 caplet qid; max 750 mg qid

Parafon Forte DSC Cplt: 500\*mg

cyclobenzaprine (B)(G) <15 years: not recommended; ≥15 years: 10 mg tid; usual range 20-40 mg/day in divided doses; max 60 mg/day x 2-3 weeks or 15 mg ext-rel once daily; max 30 mg ext-rel/day x 2-3 weeks
</p>

Amrix Cap: 15, 30 mg ext-rel

Fexmid Tab: 7.5 mg

Flexeril Tab: 5, 10 mg

dantrolene (C) <12 years: 0.5 mg/kg daily x 7 days; then 0.5 mg/kg tid x 7 days; then
 1 mg/kg tid x 7 days; then 2 mg/kg tid; max 100 mg qid; ≥12 years: 25 md daily x 7
 days; then 25 mg tid x 7 days; then 50 mg tid x 7 days; max 100 mg qid
</p>

Dantrium Tab: 25, 50, 100 mg

**Comment**: *dantrolene* is indicated for chronic spasticity associated with multiple sclerosis and spinal cord injury or disease.

diazepam (C)(IV) <6 months: not recommended; >6 months-12 years: initially
 1-2.5 mg bid-qid; may increase gradually; ≥12 years: 2-10 mg bid-qid; may increase
 gradually

Diastat Rectal gel delivery system: 2.5 mg

Diastat AcuDial Rectal gel delivery system: 10, 20 mg

Valium Tab: 2, 5, 10 mg

Valium Intensol Oral Solution Conc oral soln: 5 mg/ml (30 ml w. dropper) (alcohol 19%)

Valium Oral Solution Oral soln: 5 mg/5 ml (500 ml) (wintergreen spice)

> metaxalone (B) <12 years: not recommended; ≥12 years: 1 tab tid-qid Skelaxin Tab: 800\*mg

methocarbamol (C)(G) <16 years: not recommended; ≥16 years: initially 1.5 gm qid
 x 2-3 days; maintenance, 750 mg every 4 hours or 1.5 gm 3 times daily; max 8 gm/
 day
</p>

Robaxin Tab: 500 mg

Robaxin 750 Tab: 750 mg

Robaxin Injection 10 ml IM or IV; max 30 ml/day; max 3 days; max 5 ml/gluteal injection q 8 hours; max IV rate 3 ml/min

Vial: 100 mg/ml (10 ml)

nabumetone (C) <12 years: not recommended; ≥12 years: initially 1,000 mg as a single dose; titrate as needed; may split dose bid; max 2,000 mg/day
</p>

Relafen Tab: 500, 750 mg

Relafen 500 Tab: 500 mg

Porphenadrine citrate (C)(G) <12 years: not recommended; ≥12 years: 1 tab bid Norflex Tab: 100 mg sust-rel

tizanidine (C) <12 years: not recommended; ≥12 years: 1-4 mg q 6-8 hours; max 36 mg/day
</p>

Zanaflex Tab: 2\*, 4\*\*mg; Cap: 2, 4, 6 mg

### SKELETAL MUSCLE RELAXANT/NSAID COMBINATIONS

**Comment:** *aspirin*-containing medications are contraindicated with history of allergic type reaction to *aspirin*, children and adolescents with *Varicella* <u>or</u> other viral illness, and 3rd trimester pregnancy.

carisoprodol/aspirin (C)(III)(G) <12 years: not recommended; ≥12 years: 1-2 tabs
 oid
</p>

Soma Compound Tab: caris 200 mg/asp 325 mg (sulfites)

meprobamate/aspirin (D)(IV) <12 years: not recommended; ≥12 years: 1-2 tabs tid
 or qid
</p>

Equagesic Tab: mepro 200 mg/asp 325\*mg

### SKELETAL MUSCLE RELAXANT/NSAID/CAFFEINE COMBINATIONS

> orphenadrine/aspirin/caffeine (D)(G) <12 years: not recommended; ≥12 years: Norgesic 1-2 tabs tid-qid

Tab: orphen 25 mg/asp 385 mg/caf 30 mg Norgesic Forte 1 tab tid or qid; max 4 tabs/day Tab: orphen 50 mg/asp 770 mg/caf 60\*mg

### SKELETAL MUSCLE RELAXANT/NSAID/CODEINE COMBINATIONS

carisoprodol/aspirin/codeine (D)(III)(G) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years:
</p>

Soma Compound w. Codeine 1-2 tabs gid

Tab: caris 200 mg/asp 325 mg/cod 16 mg (sulfites)

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

### TOPICAL/TRANSDERMAL NSAIDS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0,075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

**Zostrix HP (OTC)** *Emol crm*: 0.075% (1, 2 oz)

**Comment**: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

capsaicin 8% patch (B) <18 years: not recommended; ≥18 years: apply up to 4 patches for one 60-minute application to clean dry skin; may prep area with topical anesthetic; wear non-latex gloves; patches may be cut to size/shape; treatment may be repeated every 3 months; remove with cleansing gel after treatment</p>

Qutenza Patch: 8% 1640 mcg/cm (179 mg; 1 or 2 patches, each w. 1-50 gm tube cleansing gel/carton)

diclofenac epolamine transdermal patch (C; D ≥30 wks) <12 years: not recommended; ≥12 years: apply one patch to affected area bid; remove during bathing; avoid non-intact skin
</p>

Flector Patch Patch: 180 mg/patch (30/carton)

### **ORAL NSAIDs**

diclofenac (C) <18 years: not recommended; ≥18 years: take on empty stomach; 35 mg tid; Hepatic impairment: use lowest dose
</p>

Zorvolex Gelcap: 18, 35 mg

*diclofenac sodium* (C) <18 years: not recommended; ≥18 years:

**Voltaren** 50 mg bid-qid or 75 mg bid or 25 mg qid with an additional 25 mg at HS if necessary

Tab: 25, 50, 75 mg ent-coat

Voltaren XR 100 mg once daily; rarely, 100 mg bid may be used *Tab*: 100 mg ext-rel

For an expanded list of Oral Prescription NSAIDs see page 490

### ORAL NSAIDS/PPI COMBINATIONS

▶ esomeprazole/naproxen (C; not for use in 3rd)(G) <18 years: not recommended; ≥18 years: 1 tab bid; use lowest effective dose for the shortest duration; swallow whole; take at least 30 minutes before a meal

**Vimovo** *Tab: nap* 375 mg/eso 20 mg ext-rel; *nap* 500 mg/eso 20 mg ext-rel **Comment: Vimovo** is indicated to improve signs/symptoms, and risk of gastric ulcer in patients at risk of developing NSAID-associated gastric ulcer.

### **COX-2 INHIBITORS**

Comment: Cox-2 inhibitors are contraindicated with history of asthma, urticaria, and allergic-type reactions to *aspirin*, other NSAIDs, and sulfonamides, 3rd trimester of pregnancy, and coronary artery bypass graft (CABG) surgery.

celecoxib (C)(G) <18 years: not recommended; ≥18 years: 100-400 mg bid; max 800 mg/day</p>

Celebrex Cap: 50, 100, 200, 400 mg

*▶ meloxicam* (C)(G)

Mobic <2 years, <60 kg: not recommended; ≥2, >60 kg: 0.125 mg/kg; max 7.5 mg once daily; ≥18 years: initially 7.5 mg once daily; max 15 mg once daily; Hemodialysis: max 7.5 mg/day

*Tab*: 7.5, 15 mg; *Oral susp*: 7.5 mg/5 ml (100 ml) (raspberry)

Vivlodex <18 years: not established; ≥18 years: initially 5 mg qd; may increase to max 10 mg/day; *Hemodialysis*: max 5 mg/day

Cap: 5, 10 mg

### TOPICAL/TRANSDERMAL NSAIDS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0,075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) *Emol crm*: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

**>** capsaicin 8% patch (B) <18 years: not recommended; ≥18 years: apply sparingly to intact skin tid-qid prn; apply up to 4 patches for one 60-minute application to clean dry skin; may prep area with topical anesthetic; wear non-latex gloves; patches may be cut to size/shape; treatment may be repeated every 3 months; remove with cleansing gel after treatment

Qutenza Patch: 8% 1640 mcg/cm (179 mg; 1 or 2 patches, each w. 1-50 gm tube cleansing gel/carton)

Description 
 Description 
 diclofenac epolamine transdermal patch (C; D≥30 wks) <12 years: not recommended; ≥12 years: apply sparingly tid-qid prn apply one patch to affected area bid; remove during bathing; avoid non-intact skin
</p>

Flector Patch Patch: 180 mg/patch (30/carton)

ightharpoonup diclofenac sodium (C; D  $\geq$ 30 wks)(G) <18 years: not established;  $\geq$ 18 years:

Pennsaid 1.5% in 10 drop increments, dispense and rub into front, side, and back of knee: usually: 40 drops (40 mg) gid

*Topical soln:* 1.5% (150 ml)

Pennsaid 2% apply 2 pump actuations (40 mg) and rub into front, side, and back of knee bid

Topical soln: 2% (20 mg/pump actuation, 112 gm)

Comment: Pennsaid <12 years: not recommended; ≥12 years: indicated for the treatment of pain associated with osteoarthritis of the knee

Solaraze Gel Gel: 3% (50 gm) (benzyl alcohol)

Comment: Contraindicated with aspirin allergy. As with other NSAIDs,

Solaraze Gel should be avoided in late pregnancy (≥30 weeks) because it may cause premature closure of the ductus arteriosus.

Voltaren Gel apply qid; avoid non-intact skin

Gel: 1% (100 gm)

Comment: *diclofenac* is contraindicated with *aspirin* allergy. As with other NSAIDs, Voltaren Gel should be avoided in late pregnancy (≥30 weeks) because it may cause premature closure of the ductus arteriosus.

### TOPICAL/TRANSDERMAL LIDOCAINE

▶ lidocaine transdermal patch (C)(G) <12 years: not recommended; ≥12 years: apply one patch to affected area for 12 hours (then off for 12 hours); remove during bathing; avoid non-intact skin

Lidoderm Patch: 5% (10 cm x 14 cm; 30/carton)



# **NARCOLEPSY**

### STIMULANTS

amphetamine sulfate (C)(II)

Evekeo <6 years: not recommended; 6-12 years: initially 5 mg once or twice daily at the same time(s) each day; may increase by 5 mg/day at weekly intervals; max 40 mg/day; >12 years: initially 10 mg once or twice daily at the same time(s) each day; may increase by 10 mg/day at weekly intervals; max 40 mg/day

Tab: 5, 10 mg

armodafinil (C)(IV)(G) <17 years: not recommended; ≥17 years: OSAHS: 50-250 mg once daily in the AM; SWSD: 150 mg 1 hour before starting shift; reduce dose with severe hepatic impairment
</p>

Nuvigil Tab: 50, 150, 200, 250 mg

Description > dextroamphetamine sulfate (C)(II)(G) <3 years: not recommended; 3-5 years: 2.5 mg daily; may increase by 2.5 mg daily at weekly intervals if needed; 6-12 years: initially 5 mg daily-bid; may increase by 5 mg/day at weekly intervals; usual max 40 mg/day; >12 years: initially 10 mg daily; may increase by mg/day at weekly intervals; max 40 mg/day; initially start with 10 mg daily; increase by 10 mg at weekly intervals if needed; may switch to daily dose with sust-rel spansules when titrated

**Dexedrine** *Tab*: 5\*mg (tartrazine)

Dexedrine Spansule Cap: 5, 10, 15 mg sust-rel

Dextrostat Tab: 5, 10 mg (tartrazine)

dextroamphetamine saccharate/dextroamphetamine sulfate/amphetamine aspartate/amphetamine sulfate (C)(II)(G)

Adderall <6 years: not indicated; 6-12 years: initially 5 mg daily; may increase weekly by 5 mg/day; usual max 40 mg/day in 2-3 divided doses; >12 years: initially 10 mg daily; may increase weekly by 10 mg/day; usual max 60 mg/day in 2-3 divided doses; first dose on awakening and then q 4-6 hours prn

Tab: 5\*\*, 7.5\*\*, 10\*\*, 12.5\*\*, 15\*\*, 20\*\*, 30\*\*mg

Adderall XR <6 years: not recommended; 6-12 years: initially 10 mg daily in the AM; may increase by 10 mg weekly; max 30 mg/day; >12 years: initially 10 mg daily; may increase to 20 mg/day after 1 week; max 30 mg/day; do not chew; may sprinkle on applesauce

Cap: 5, 10, 15, 20, 25, 30 mg ext-rel

Comment: Adderall is also indicated to improve wakefulness in patients with SWSD and OSAHS.

 $\triangleright$  dexmethylphenidate (C)(II)(G) <6 years: not recommended;  $\ge$ 6 years:

Focalin initially 2.5 mg bid; allow at least 4 hours between doses; may increase at 1 week intervals; max 40 mg/day

*Tab*: 2.5, 5, 10\*mg (dye-free)

Focalin XR 20-40 mg q AM; max 40 mg/day

*Tab*: 5, 10, 15, 20, 30, 40 mg ext-rel (dye-free)

➤ methamphetamine (C)(II)(G)

**Desoxyn** Gradumet <6 years: not recommended; ≥6 years: initially 5 mg daily bid; may increase by 5 mg/day at weekly intervals; usual effective dose; 20-25 mg/day

*Tab*: 5, 10, 15 mg sust-rel

methylphenidate (regular-acting) (C)(II)(G)

Methylin, Methylin Chewable, Methylin Oral Solution <6 years: not recommended; ≥6 years-12 years: initially 5 mg twice daily before breakfast and lunch; may increase 5-10 mg/week; max 60 mg/day; >12 years: usual dose 20-30 mg/day in 2-3 divided doses 30-45 minutes before a meal; may increase to 60 mg/day

Tab: 5, 10\*, 20\*mg; Chew tab: 2.5, 5, 10 mg (grape) (phenylalanine); Oral soln: 5, 10 mg/5 ml) (grape)

Ritalin <6 years: not recommended; ≥6-12 years: years: initially 5 mg bid ac (before breakfast and lunch); may gradually increase by 5-10 mg at weekly intervals as needed; max 60 mg/day; >12 years: 10-60 mg/day in 2-3 divided doses 30-45 minutes ac; max 60 mg/day

Tab: 5, 10\*, 20\*mg

### methylphenidate (long-acting) (C)(II)

Concerta <6 years: not recommended; ≥6 years: initially 18 mg q AM; may increase in 18 mg increments as needed; max 54 mg/day; do not crush or chew *Tab*: 18, 27, 36, 54 mg sust-rel

Metadate CD (G) <6 years: not recommended; 6-12 years: initially 20 mg daily; may gradually increase by 20 mg/day at weekly intervals as needed; max 60 mg/day; >12 years: 1 cap daily in the AM; may sprinkle on food; do not crush or chew

Cap: 10, 20, 30, 40, 50, 60 mg immed- and ext-rel beads

Metadate ER <6 years: not recommended; ≥6 years-12 years: use in place of regular-acting *methylphenidate* when the 8-hour dose of Metadate-ER corresponds to the titrated 8-hour dose of regular-acting *methylphenidate*: >12 years: 1 tab daily in the AM; do not crush or chew

Tab: 10, 20 mg ext-rel (dye-free)

Ritalin LA <6 years: not recommended; ≥6 years: use in place of regular-acting *methylphenidate* when the 8-hour dose of Ritalin LA corresponds to the titrated 8-hour dose of regular-acting *methylphenidate*; 1 cap daily in the AM; max 60 mg/day

Cap: 10, 20, 30, 40 mg ext-rel (immed- and ext-rel beads)

Ritalin SR <6 years: not recommended; ≥6 years: use in place of regular-acting *methylphenidate* when the 8-hour dose of Ritalin SR corresponds to the titrated 8-hour dose of regular-acting *methylphenidate*; max 60 mg/day

Tab: 20 mg sust-rel (dye-free)

methylphenidate (transdermal patch) (C)(II)(G) <6 years: not recommended; ≥6 years: initially 10 mg patch daily in the AM; may increase by 5-10 mg/week; max 60 mg/day
</p>

Transdermal patch: 10, 15, 20, 30 mg

modafinil (C)(IV)(G) <17 years: not recommended; ≥17 years: 100-200 mg q AM; max 400 mg/day
</p>

**Provigil** *Tab*: 100, 200\*mg

Comment: Provigil also promotes wakefulness in patients with SWSD and excessive sleepiness due to OSAHS.

pemoline (B)(IV) <6 years: not recommended; ≥6 years: 18.75-112.5 mg/day; usually start with 37.5 mg in AM; increase weekly by 18.75 mg/day if needed; max 112.5 gm/day</p>

Cylert Tab: 18.75\*, 37.5\*, 75\*mg

Cylert Chewable Chew tab: 37.5\*mg

Comment: Monitor baseline serum ALT and repeat every 2 weeks thereafter.

Sodium oxybate (B) <16 years: not recommended; ≥16 years: take dose at bedtime while in bed and repeat 2.5-4 hours later; titrate to effect; initially 4.5 grams/night in 2 divided doses; may increase by 1.5 gm/night in 2 divided doses; max 9 gm/night Xyrem Oral soln: 100, 200\*mg</p>

Comment: Xyrem is used to reduce the number of cataplexy attacks (sudden loss of muscle strength) and reduce daytime sleepiness in patients with narcolepsy. Contraindicated with *alcohol* or CNS depressant (may impair consciousness; may lead to respiratory depression, coma, or death). Prepare both doses prior to bedtime and do not attempt to get out of bed after taking the first dose. Place both doses within reach at the bedside. Set the bedside clock to awaken for the second dose. Dilute each dose in 60 ml (1/4 cup, 4 tbsp) water in child resistant dosing containers. Food significantly reduces the bioavailability of *sodium oxybate*; take at least 2 hours after ingesting food.



# **NAUSEA/VOMITING**

# PROPHYLAXIS (FOR PREVENTION OF MOTION SICKNESS AND POST-OP NAUSEA AND VOMITING)

### **Anticholinergic Agents**

**▶** scopolamine (C)

Scopace <12 years: not recommended;  $\geq$  12 years: 0.4-0.8 mg 1 hour before travel; may repeat in 8 hours

Tab: 0.4 mg

Transderm Scop <12 years: not recommended; ≥12 years: 1 patch behind ear at least 4 hours before travel; each patch is effective for 3 days; apply a new patch every 4th day to the opposite side

Transdermal patch: 1.5 mg (4/carton)

### MILD NAUSEA

▶ phosphorylated carbohydrate solution (C)(G) 1-2 tbsp q 15 minutes until nausea subsides; max 5 doses/day

Emetrol (OTC) Soln: dextrose 1.87 gm/fructose 1.87 gm/phosphoric acid 21.5 mg per 5 ml (4, 8, 16 oz)

### Cannabinoids

Comment: Cannabinoids potentiate CNS depression with benzodiazepines, barbiturates, alcohol, and other CNS depressants, and other psychoactive substances, may affect and be affected by other drugs that are highly protein bound (e.g., sympathomimetics, anticholinergics, TCAs), antagonizes theophylline, and phenothiazines may potentiate cannabinoid effects without additional toxicities.

dronabinol (C)(III) initially 5 mg/m<sup>2</sup> 1-3 hours before chemotherapy; then q 2-4 hours prn; max 4-6 doses/day, 15 mg/m<sup>2</sup>

Marinol Cap: 2.5, 5, 10 mg (sesame seed oil)

▶ nabilone (C)(II) 1-2 mg bid; max 6 mg/day in 3 divided doses; initially 1-3 hours before chemotherapy; may give 1-2 mg the night before chemo; may continue 48 hours after each chemo cycle

Cesamet Cap: 1 mg (sesame seed oil)

### **Antihistamines**

meclizine (C)(G) <12 years: 5 mg/kg/day in 4 divided doses; max 300 mg/day; ≥12 years: Travel: 25-50 mg 1 hour prior to travel; repeat every 24 hours; Vertigo of vestibular origin: 25-100 mg/day in divided doses
</p>

Antivert Tab: 12.5, 25, 50\*mg; Amp: 50 mg/ml (1 ml); Vial: 50 mg/ml (1 ml single use); 50 mg/ml (10 ml multidose)

**Bonine (OTC)** *Cap*: 15, 25, 50 mg; *Tab*: 12.5, 25, 50 mg; *Chew tab/Film-coat tab*: 25 mg

**Dramamine II (OTC)** *Tab*: 25 mg **Zentrip** *Strip*: 25 mg orally-disint

### **MODERATE TO SEVERE NAUSEA**

### **Phenothiazines**

chlorpromazine (C)(G) <6 months: not recommended; ≥6 months-12 years: 0.25 mg/lb orally q 4-6 hours prn or 0.5 mg/lb rectally q 6-8 hours prn; ≥12 years: 10-25 mg PO q 4 hours prn or 50-100 mg rectally q 6-8 hours prn</p>

Thorazine *Tab*: 10, 25, 50, 100, 200 mg; *Spansule*: 30, 75, 150 mg sust-rel; *Syr*: 10 mg/5 ml (4 oz; orange custard); *Conc*: 30 mg/ml (4 oz); 100 mg/ml (2, 8 oz); *Supp*: 25, 100 mg

perphenazine (C) <12 years: not recommended; ≥12 years: 0.4-0.8 mg 1 hour before travel; may repeat in 8 hours 5 mg IM (may repeat in 6 hours) or 8-16 mg/day PO in divided doses; max 15 mg/day IM; max 24 mg/day PO</p>

Trilafon Tab: 2, 4, 8, 16 mg; Óral conc: 16 mg/5 ml (118 ml); Amp: 5 mg/ml (1 ml)

→ prochlorperazine (C)(G)

Compazine <2 years or <20 lb: not recommended; 20-29 lb: 2.5 mg daily bid prn; max 7.5 mg/day; 30-39 lb: 2.5 mg bid-tid prn; max 10 mg/day; 40-85 lb: 2.5 mg tid or 5 mg bid prn; max 15 mg/day; ≥85 lbs: 5-10 mg tid-qid prn; usual max 40 mg/day

Tab: 5, 10 mg; Syr: 5 mg/5 ml (4 oz) (fruit)

Compazine Suppository <2 years or <20 lb: not recommended; 20-29 lb: 2.5 mg daily-bid prn; max 7.5; mg/day; 30-39 lb: 2.5 mg bid-tid prn; max 10 mg/day; 40-85 lb: 2.5 mg tid or 5 mg bid prn; max 15 mg/day; ≥85 lbs: 25 mg rectally bid prn; usual max 50 mg/day

Rectal supp: 2.5, 5, 25 mg

Compazine Injectable <2 years or <20 lb: not recommended;  $\geq$ 2 years-12 years,  $\geq$ 20 lb: 0.06 mg/kg x 1 dose;  $\geq$ 12 years: 5-10 mg tid or qid prn

Vial: 5 mg/ml (2, 10 ml)

Compazine Spansule <12 years: not recommended; ≥12 years: 0.4-0.8 mg 1 hour before travel; may repeat in 8 hours 15 mg q AM prn or 10 mg q 12 hours prn; usual max 40 mg/day

Spansule: 10, 15 mg sust-rel

Promethazine (C) <2 years: not recommended; 2-12 years: 0.5 mg/lb or 6.25-25 mg q 4-6 hours PO or rectally; >12 years: 12.5-25 q 4-6 hours PO or rectally Phenergan Tab: 12.5\*, 25\*, 50 mg; Plain syr: 6.25 mg/5 ml; Fortis syr: 25 mg/5 ml; Rectal supp: 12.5, 25, 50 mg

Comment: *promethazine* is contraindicated in children with uncomplicated nausea, dehydration, Reye's syndrome, history of sleep apnea, asthma, and lower respiratory disorders in children. *Promethazine* lowers the seizure threshold in children, may

cause cholestatic jaundice, anticholinergic effects, extrapyramidal effects, and potentially fatal respiratory depression.

### Substance P/Neurokinin 1 Receptor Antagonist

aprepitant (B)(G) <6 months: years: not recommended; ≥6 months-12 years: use oral suspension (see mfr pkg insert for dose by weight); >12 years: administer with corticosteroid and 5-HT-3 receptor antagonist; Day 1 of chemotherapy cycle: 125 mg 1 hour prior to chemotherapy Day 2 &3: 80 mg in the morning

Emend Cap: 40, 80, 125 mg (2 x 80 mg bifold pck; 1 x 25 mg/2 x 80 mg trifold pck); Oral susp: 125 mg pwdr for oral suspension, single dose pouch w dispenser; Vial: 150 mg pwdr for reconstitution and IV infusion

### 5-HT-3 Receptor Antagonists

Comment: The selective 5-HT-3 receptor antagonists indicated for prevention of nausea and vomiting associated with moderately to highly emetogenic chemotherapy.

dolasetron (B) <2 years: not recommended; 2-16 years: 1.8 mg/kg; >16 years: administer 100 mg IV over 30 seconds, 30 min prior to administration of chemotherapy or 2 hours before surgery; max 100 mg/dose

Anzemet Tab: 50, 100 mg; Amp: 12.5 mg/0.625 ml; Prefilled carpuject syringe: 12.5 mg (0.625 ml); Vial: 100 mg/5 ml (single use); Vial: 500 mg/25 ml (multidose)

### granisetron

Kytril (B) <2 years: not recommended; 2-12 years: years: 10 mcg/kg; >12 years: administer IV over 30 seconds, 30 min prior to administration of chemotherapy; max 1 dose/week

Tab: 1 mg; Oral soln: 2 mg/10 ml (30 ml; orange); Vial: 1 mg/ml (1 ml single dose; preservative-free); 1 mg/ml (4 ml multidose) (benzyl alcohol)

Sancuso (B) <18: not recommended; ≥18 years: apply 1 patch 24-48 hours before chemo; remove 24 hours (minimum) to 7 days (maximum) after completion of treatment

*Transdermal patch:* 3.1 mg/day

Sustol (NE) <18: not established; ≥18 years: administer SC over 20-30 seconds (due to drug viscosity) on Day 1 of chemotherapy and not more frequently than once every 7 days; CrCl 30-59 mL/min: repeat dose no more than every 14th day; CrCl <30 mL/min: not recommended; for patients receiving MEC, the recommended dexamethasone dosage is 8 mg IV on Day 1; for patients receiving AC combination chemotherapy regimens, the recommended dexamethasone dosage is 20 mg IV on Day 1, followed by 8 mg PO bid on Days 2, 3 and 4; if Sustol is administered with an NK₁ receptor antagonist, see that drug's mfr pkg insert for the recommended dexamethasone dosing

Syringe: 10 mg/0.4 ml ext-rel; prefilled single dose/kit

Comment: At least 60 minutes prior to administration, remove the Sustol kit from refrigeration, activate a warming pouch, and wrap the syringe in the warming pouch for 5-6 minutes to warm it to room temperature.

ondansetron (C)(G) <4 years: not recommended; 4-11 years, moderately emetogenic chemotherapy: 4 mg q 4 hours x 3 doses beginning 30 min prior to start; then 4 mg q 8 hours x 1-2 days following; >11 years: use oral forms: *Highly emetogenic chemotherapy*: 24 mg x 1 dose 30 min prior to start of single-day chemotherapy;

*Moderately emetogenic chemotherapy*: 8 mg q 8 hours x 2 doses beginning 30 minutes prior to start of chemotherapy; then 8 mg q 12 hours x 1-2 days following

**Zofran** *Tab*: 4, 8, 24 mg

**Zofran ODT** *ODT*: 4, 8 mg (strawberry) (phenylalanine)

Zofran Oral Solution Oral soln: 4 mg/5 ml (50 ml) (strawberry) (phenylalanine); Parenteral form: see mfr pkg insert

**Zofran Injection** *Vial:* 2 mg/ml (2 ml single dose); 2 mg/ml (20 ml multidose); 32 mg/50 ml (50 ml multidose); *Prefilled syringe:* 4 mg/2 ml, single use (24/

Zuplenz Oral Soluble Film: 4, 8 mg oral-dis (10/carton) (peppermint)

▶ palonosetron (B)(G) <1 month: not recommended; 1 month-17 years: 20 mcg/kg; max 1.5 mg single dose; infuse over 15 minutes beginning 30 minutes prior to administration of chemo; >17 years: Chemotherapy: administer 0.25 mg IV over 30 seconds, 30 min prior to administration of chemo; max 1 dose/week or 1 cap 1 hour before chemo; Post-op: administer 0.075 mg IV over 10 seconds immediately before induction of anesthesia

Aloxi Vial (single use): 0.075 mg/1.5 ml; 0.25 mg/5 ml (mannitol)

### ANTI-DOPAMINERGIC (PROMOTILITY) AGENTS

metoclopramide (B)(G) <12 years: not established; ≥12 years: 10 mg 30 minutes
 before each meal and at HS for 2-8 weeks
</p>

Metozolv ODT ODT: 5, 10 mg (mint)

Reglan Tab: 5, 10\*mg

Comment: *metoclopramide* is contraindicated when stimulation of GI motility may be dangerous. Observe for tardive dyskinesia and Parkinsonism. Avoid concomitant drugs which may cause an extrapyramidal reaction (e.g., phenothiazines, *haloperidol*).

## SUBSTANCE P/NEUROKININ-1(NK-1) RECEPTOR ANTAGONIST

rolapitant (NE) <18 years: not established; ≥18 years: take 180 mg in a single dose 1-2 hours before chemotherapy treatment; administer in combination with dexamethasone and 5-HT3 receptor antagonist

Varubi Tab: 90 mg film-coat

Comment: Varubi is indicated in combination with other antiemetic agents in patients  $\geq 18$  years for the prevention of delayed nausea and vomiting associated with emetogenic cancer chemotherapy.

# SUBSTANCE P/NEUROKININ-1 (NK-1) RECEPTOR ANTAGONIST/5-HT-3 RECEPTOR ANTAGONIST COMBINATION

netupitant/palonosetron (C) <18 years: not established; ≥18 years: take one cap
 approximately 1 hour prior to chemotherapy; administer in combination with dexamethasone 12 mg 30 minutes prior to chemotherapy on Day 1; then 8 mg orally on
Days 2-4
</p>

Akynzeo Gelcap: netu 300 mg/palo 0.5 mg

Comment: Akynzeo is indicated in combination with other antiemetic agents in patients ≥18 years: for the prevention of delayed nausea and vomiting associated with highly emetogenic cancer chemotherapy.

# NERVE AGENT POISONING

atropine sulfate (NE)(G) <15 lb: not recommended; ≥15-40 lb: 0.5 mg IM; ≥40-90 lb: 1 mg IM; >90 lb: 2 mg IM

**AtroPen** *Pen* (single use): 0.5, 1, 2 mg (0.5 ml)



# NON-24 SLEEP-WAKE DISORDER

Comment: For other drug options (stimulants, sedative hypnotics), see Insomnia page 234, Sleepiness: Excessive, Shift Work Sleep Disorder page 390

### MELATONIN RECEPTOR AGONIST

tasimelteon (C) <12 years: not established; ≥12 years: 1 gel cap before bedtime at the same time every night; do not take with food
 Hetlioz Gel cap: 20 mg
</p>

### OREXIN RECEPTOR ANTAGONIST

suvorexant (C)(IV) <12 years; not established; ≥12 years; use lowest effective dose; take
 30 minutes before bedtime; do not take if unable to sleep for ≥7 hours; max 20 mg
 Belsomra Tab: 5, 10, 15, 20 mg (30/blister pck)
</p>

## **OBESITY**

Comment: Target BMI is 25-30 (≤27 preferred).

### STIMULANTS

amphetamine sulfate (C)(II) <12 years: not recommended; ≥12 years: initially 5 mg
 30-60 minutes before meals; usually up to 30 mg/day
 Evekeo Tab: 5, 10 mg
</p>

### LIPASE INHIBITOR

P orlistat (X)(G) <12 years: not recommended; ≥12 years: 1 cap tid 1 hour before or during each main meal containing fat

Alli (OTC) Cap: 60 mg

Xenical Cap: 120 mg

Comment: For use when BMI >30 kg/m<sup>2</sup> or BMI >27 kg/m<sup>2</sup> in the presence of other risk factors (i.e., HTN, DM, dyslipidemia).

### ANOREXIGENICS

## Sympathomimetics

Comment: ASEs of sympathomimetics include hypertension, tachycardia, restlessness, insomnia, and dry mouth.

benzphetamine (X)(III) <12 years: not recommended; ≥12 years: initially 25-50 mg daily in the mid-morning or mid-afternoon; may increase to bid-tid as needed Didrex Tab: 50\*mg Contrave Tab: nal 8 mg/bup 900 mg ext-rel

methamphetamine (C)(II) <12 years: not recommended; ≥12 years: 10-15 mg q AM
 Desoxyn Tab: 5, 10, 15 mg sust-rel
</p>

▶ phendimetrazine (C)(III)

Bontril PDM <12 years: not recommended; ≥12 years: 35 mg bid-tid 1 hour ac; may reduce to 17.5 mg (1/2 tab)/dose; max 210 mg/day in 3 divided doses *Tab*: 35\*mg

Bontril Slow-Release <12 years: not recommended; ≥12 years: 105 mg in the AM 30-60 minutes before breakfast

Cap: 105 mg slow-rel

▶ phentermine (C)(IV)

**Adipex-P** (G) <16 years: not recommended; ≥16 years: 1 cap or tab before breakfast or 1/2 tab bid ac

Cap: 37.5 mg; Tab: 37.5\*mg

Fastin (G) <16 years: not recommended; ≥16 years: 1 cap before breakfast *Cap*: 30 mg

**Ionamin** (G) <16 years: not recommended; ≥16 years: cap before breakfast <u>or</u> 10-14 hours prior to HS

Cap: 15, 30 mg

Suprenza ODT (X)(IV) <16 years: not recommended;  $\geq$ 16 years: dissolve 1 tab on top of tongue once daily in the morning, with or without food; use lowest effective dose

*Tab*: 15, 30, 37.5 mg orally-disint

Comment: *phentermine* is contraindicated with history of cardiovascular disease (e.g., coronary artery disease, stroke, arrhythmias, congestive heart failure, uncontrolled hypertension, during or within 14 days following the administration of an MAOI, hyperthyroidism, glaucoma, agitated states, history of drug abuse, pregnancy, nursing).

## Sympathomimetic/Antiepileptic Combination

Phentermine/topiramate ext-rel (X)(IV)(G) <16 years: not established; ≥16 years: initially 3.75 mg/23 mg daily in the AM x 14 days; then, increase to 7.5 mg/46 mg and evaluate weight loss on this dose after 12 weeks; if ≤3% weight loss from baseline, discontinue or increase dose to 11.25 mg/69 mg x 14 days; then, increase to 15 mg/92 mg and evaluate weight loss on this dose after 12 weeks; if ≤5% weight loss from baseline, discontinue by taking a dose every other day for at least one week prior to stopping; max 7.5 mg/46 mg for moderate to severe renal impairment or moderate hepatic impairment.</p>

Qsymia

Cap: Qsymia 3.75/23: phen 3.75 mg/topir 23 mg ext-rel Qsymia 7.5/46: phen 7.5 mg/topir 46 mg ext-rel Qsymia 11.25/69: phen 11.25 mg/topir 69 mg ext-rel Qsymia 15/92: phen 15 mg/topir 92 mg ext-rel

Comment: Side effects include hypertension, tachycardia, restlessness, insomnia, and dry mouth. Contraindicated with glaucoma, hyperthyroidism, and within 14 days of taking an MAOI. Qsymia 3.75/23 and Qsymia 11.25/69 are for titration purposes only.

### Serotonin 2C Receptor Agonist

lorcaserin (X)(G) <18 years: not recommended; ≥18 years: 10 mg bid; discontinue if 5% weight loss is not achieved by week 12

Belviq Tab: 10 mg film-coat

Comment: Belviq is indicated as an adjunct to a reduced-calorie diet and increased physical activity for chronic weight management in patients ≥18 years with an initial body mass index (BMI) of 30 kg/m² or greater (obese) or 27 kg/m² or greater (overweight) in the presence of at least one weight-related comorbid condition (e.g., hypertension, dyslipidemia, type 2 diabetes). Serotonin 2C receptor agonists interact with serotonergic drugs (selective serotonin reuptake inhibitors [SSRIs], serotonin-norepinephrine reuptake inhibitors [SNRIs], monoamine oxidase inhibitors [MAOIs], triptans, bupropion, dextromethorphan, St. John's wort); therefore, use with extreme caution due to the risk of serotonin syndrome.

### GLUCAGON-LIKE PEPTIDE-1 (GLP-1) RECEPTOR AGONIST

▶ liraglutide (C) <18 years: not recommended; ≥18 years: administer SC in the upper arm, abdomen, or thigh once daily; escalate dose gradually over 5 weeks to 3 mg SC daily; Week 1: 0.6 mg SC daily; Week 2: 1.2 mg SC daily; Week 3: 1.8 mg SC daily; Week 4: 2.4 mg SC daily; Week 5: 3 mg SC daily</p>

Saxenda Soln for SC inj: 6 mg/ml multidose prefilled pen (3 ml; 3, 5 pens/carton) Comment: Saxenda is indicated as an adjunct to a reduced-calorie diet and increased physical activity for chronic weight management in patients ≥18 years with an initial body mass index (BMI) of 30 kg/m² or greater (obese) or 27 kg/m² or greater overweight) in the presence of at least one weight-related comorbid condition (e.g., hypertension, dyslipidemia, type 2 diabetes). Not indicated for treatment of T2DM. Do not use with Victoza, other GLP-1 receptor agonists, or insulin. Contraindicated with personal or family history of medullary thyroid carcinoma (MTC) and multiple endocrine neoplasia syndrome (MENS) type 2. Monitor for signs/symptoms pancreatitis. Discontinue if gastroparesis, renal, or hepatic impairment.



# OBSESSIVE-COMPULSIVE DISORDER (OCD)

## SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)

Comment: Co-administration of SSRIs with TCAs requires extreme caution. Concomitant use of MAOIs and SSRIs is absolutely contraindicated. Avoid other serotonergic drugs. A potentially fatal adverse event is *serotonin syndrome*, caused by serotonin excess. Milder symptoms require HCP intervention to avert severe symptoms that can be rapidly fatal without urgent/emergent medical care. Symptoms include restlessness, agitation, confusion, hallucinations, tachycardia, hypertension, dilated pupils, muscle twitching, muscle rigidity, loss of muscle coordination, diaphoresis, diarrhea, headache, shivering, piloerection, hyperpyrexia, cardiac arrhythmias, seizures, loss of consciousness, coma, death. Abrupt withdrawal or interruption of treatment with an antidepressant medication is sometimes associated with an *antidepressant discontinuation syndrome*, which may be mediated by gradually tapering the drug over a period of two weeks or longer, depending on the dose strength and length of treatment. Common symptoms of the *serotonin discontinuation syndrome* include flu-

like symptoms (nausea, vomiting, diarrhea, headaches, sweating), sleep disturbances (insomnia, nightmares, constant sleepiness), mood disturbances (dysphoria, anxiety, agitation), cognitive disturbances (mental confusion, hyperarousal), sensory and movement disturbances (imbalance, tremors, vertigo, dizziness, electric-shock-like sensations in the brain, often described by sufferers as "brain zaps").

### ▶ fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10 mg/day; may increase after 1 week to 20 mg/day; range 20-60 mg/day; range for lower weight children, 20-30 mg/day; ≥17 years: initially 20 mg daily; may increase after 1 week; doses >20 mg/day should be divided into AM and noon doses; max 80 mg/day

Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint)

Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxetine therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after
the last 20 mg fluoxetine dose

Cap: 90 mg ent-coat del-rel pellets

### ▶ fluvoxamine (C)(G)

Luvox <8 years: not recommended; 8-17 years: initially 25 mg q HS; adjust in 25 mg increments q 4-7 days; usual range 50-200 mg/day; over 50 mg/day, divide into 2 doses giving the larger dose at HS; >17 years: initially 50 mg q HS; adjust in 50 mg increments at 4-7 day intervals; range 100-300 mg/day; over 100 mg/day, divide into 2 doses giving the larger dose at HS

Tab: 25, 50\*, 100\*mg

Luvox CR <18 years: not recommended; ≥18 years: initially 100 mg once daily at HS; may increase by 50 mg increments at 1 week intervals; max 300 mg/day; swallow whole

Cap: 100, 150 mg ext-rel

### paroxetine maleate (D)(G)

Paxil <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day

Tab: 10\*, 20\*, 30, 40 mg

Paxil CR <12 years: not recommended; ≥12 years: initially 25 mg daily in AM; may increase by 12.5 mg at weekly intervals as needed; max 62.5 mg/day

*Tab*: 12.5, 25, 37.5 mg cont-rel ent-coat

Paxil Suspension <12 years: not recommended;  $\geq$ 12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day

Oral susp: 10 mg/5 ml (250 ml) (orange)

Sertraline (C) <6 years: not recommended; 6-12 years: initially 25 mg daily; max 200 mg/day; 13-17 years: initially 50 mg daily; max 200 mg/day; >17 years: initially 50 mg daily; increase at 1 week intervals if needed; max 200 mg daily

Zoloft *Tab*: 15\*, 50\*, 100\*mg; *Oral conc*: 20 mg per ml (60 ml [dilute just before administering in 4 oz water, ginger ale, lemon-lime soda, lemonade, <u>or</u> orange juice]) (alcohol 12%)

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

⇒ amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS

Tab: 10, 25, 50, 75, 100, 150 mg

amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid;
 after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if
 total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as
 a single bedtime dose (max 300 mg q HS)
</p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; ≥16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS</li>

Anafranil Cap: 25, 50, 75 mg

desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

- $\triangleright$  *imipramine* (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg Cap: 75, 100, 125, 150 mg

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid-qid; max 150 mg/day</p>

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
 Vivactil Tab: 5, 10 mg
</p>

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg

# ONYCHOMYCOSIS (FUNGAL NAIL)

### ORAL AGENTS

Grifulvin V Tab: 250, 500 mg; Oral susp: 125 mg/5 ml (120 ml; alcohol 0.02%)

Gris-PEG Tab: 125, 250 mg

itraconazole (C)(G) <12 years: not recommended; ≥12 years: 200 mg daily x 12 consecutive weeks for toenails; 200 mg bid x 1 week, off 3 weeks, then 200 mg bid x 1 additional week for fingernails</p>

Sporanox Cap: 100 mg; Soln: 10 mg/ml (150 ml) (cherry-caramel)

Pulse Pack: 100 mg caps (7/pck)

terbinafine (B)(G) <12 years: not recommended; ≥12 years: 250 mg daily x 6 weeks for fingernails; 250 mg daily x 12 weeks for toenails
 Lamisil Tab: 250 mg
</p>

### TOPICAL AGENTS

Comment: File and trim nail while nail is free from drug. Remove unattached infected nail as frequently as monthly. For use with mild to moderate onychomycosis of the fingernails and toenails, without lunula involvement due to *Trichophyton rubrum* immunocompetent patients as part of a comprehensive treatment program. For use on nails and adjacent skin only. Apply evenly to entire onycholytic nail and surrounding 5 mm of skin daily, preferably at HS or 8 hours before washing; apply to nail bed, hyponychium, and under surface of nail plate when it is free of the nail bed; apply over previous coats, then remove with alcohol once per week; treat for up to 48 weeks. <12 years not recommended.

Ciclobirox (B)

Penlac Nail Lacquer Topical soln (lacquer): 8% (6.6 ml w. applicator)

▶ efinaconazole (C)

**Jublia** *Topical soln*: 5% (10 ml w. brush applicator)

► tavaborole (C)

**Kerydin** *Topical soln*: 10% (10 ml w. dropper)

# OPHTHALMIA NEONATORUM: CHLAMYDIAL

### **PROPHYLAXIS**

erythromycin ophthalmic ointment 0.5-1 cm ribbon into lower conjunctival sac of each eye x 1 application

Ilotycin Ophthalmic Ointment Ophth oint: 5 mg/g (1/8 oz)

Comment: The following treatment regimens are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms.

### **RECOMMENDED REGIMENS**

## Regimen 1

erythromycin base (B)(G) 50 mg/kg/day in 4 doses x 14 days

## Regimen 2

erythromycin ethylsuccinate (B)(G) 50 mg/kg/day in 4 doses x 14 days

### DRUG BRANDS AND DOSE FORMS

*▶ erythromycin base* (B)(G)

Ery-Tab *Tab*: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

> erythromycin ethylsuccinate (B)(G)

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)



# OPHTHALMIA NEONATORUM: GONOCOCCAL

Comment: The following prophylaxis and treatment regimens for gonococcal conjunctivitis are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines.

### **REGIMEN 1**

erythromycin 0.5% ophthalmic ointment 0.5-1 cm ribbon into lower conjunctival sac of each eye x 1 application

Ilotycin Ophthalmic Ointment Ophth oint: 5 mg/g (1/8 oz)

### **REGIMEN 2**

ceftriaxone (B)(G) <12 years: 1 gm IM in a single dose; ≥12 years: 25-50 mg/kg IV or IM in a single dose, not to exceed 125 mg
</p>





# OPIOID DEPENDENCE, OPIOID WITHDRAWAL SYNDROME

Comment: Health care Safety labeling for all immediate-release (IR) opioids has been issued by the FDA. The boxed warning includes serious risks of misuse, abuse, addiction, overdose, and death. The dosing section offers clear steps regarding administration and patient monitoring including initial dose, dose changes, and the abrupt cessation of treatment in physical dependence. Chronic maternal use of opioids during pregnancy can lead to potentially life-threatening neonatal opioid withdrawal. The American Pain Society (APS) has released new evidence-based clinical practice guidelines that include 32 recommendations related to post-op pain management in adults and children.

### NARCOTIC ANALGESIC

methadone (C) <12 years: not established; ≥12 years: Narcotic detoxification: 15-40 mg daily in decreasing doses not to exceed 21 days; Narcotic maintenance: ≥21 days; see mfr pkg insert
</p>

**Dolophine** *Tab*: 5, 10 mg; *Dispersible tab*: 40 mg (dissolve in 120 ml orange juice or other citrus drink); *Oral conc*: 5, 10 mg/5 ml; 10 mg/10 ml

Comment: *methadone* maintenance is allowed only by approved providers with strict state and federal regulations.

### OPIOID ANTAGONIST

▶ naltrexone (C)

ReVia <12 years: not established; ≥12 years: 50 mg daily

Tab: 50 mg

Vivitrol <12 years: not established; ≥12 years: 380 mg IM once monthly; alternate buttocks

Vial: 380 mg

### OPIOID PARTIAL AGONIST-ANTAGONIST

Comment: Belbuca, Butrans, Probuphine, and Subutex maintenance are allowed only by approved providers with strict state and federal regulations. These drugs are

potentiated by CYP3A4 inhibitors (e.g., azole antifungals, macrolides, HIV protease inhibitors) and antagonized by CYP3A4 inducers (monitor for opioid withdrawal). Concomitant NNRTIs (e.g., *efavirenz*, *nevirapine*, *etravirine*, *delavirdine*) or PIs (e.g., *atazanavir* with/without *ritonavir*): monitor. Risk of respiratory or CNS depression with concomitant opioid analgesics, general anesthetics, benzodiazepines, phenothiazines, other tranquilizers, sedative/hypnotics, alcohol, or other CNS depressants. Risk of serotonin syndrome with concomitant SSRIs, SNRIs, TCAs, 5-HT3 receptor antagonists, *mirtazapine*, *trazodone*, *tramadol*, MAO inhibitors. 

buprenorphine (C)(III) < 16 years: not established

Belbuca <12 years: not established; ≥12 years: apply buccal film to inside of cheek; do not chew or swallow; *Opioid naïve*: initially 75 mcg once daily-q 12 hours x at least 4 days; then, increase to 150 mcg q 12 hours; may increase in increments of 150 mcg q 12 hours no sooner than every 4 days; max 900 mcg q 12 hours; see mfr pkg insert for conversion from other opioids; *Severe hepatic impairment* or *oral mucositis*: reduce initial and titration doses by half

Buccal film: 75, 150, 300, 450, 600, 750, 900 mcg (60/pck) (peppermint)
Butrans Transdermal System <12 years: not established; ≥12 years: apply one patch to clean, dry, hairless, intact skin on the upper outer arm, upper chest, upper back, or side of chest every 7 days; rotate sites and do not reuse a site for at least 21 days; Opioid naïve or oral morphine <30 mg/day or equivalent: one 5 mcg/hour patch; Converting from oral morphine equivalents 30-80 mg/day: taper current opioids for up to 7 days to ≤30 mg/day oral morphine equivalents before starting; then initiate with 10 mcg/hour patch; may use a short-acting analgesic until efficacy is attained; increase dose only after exposure to previous dose x at least 72 hours; max one 20 mcg/hour patch/week; Conversion from higher opioid doses: not recommended

*Transdermal patch:* 5, 7.5, 10, 15, 20 mcg/hour (4/pck)

Probuphine <16 years: not established; ≥16 years: initiate when stable on *buprenorphine* ≤8 mg/day; insertion site is the inner side of the upper arm; 4 implants are intended to be in place for 6 months; remove the implants by the end of the 6th month and insert four new implants on the same day in the contralateral arm; if a new implant is not inserted on the same day as removal of a previous implant, maintain the patient on the previous dose of transmucosal *buprenorphine* (i.e., the dose from which the patient was transferred to **Probuphine** treatment).

Subdermal implant: 74.2 mg of buprenorphine (equivalent to 80 mg of buprenorphine hcl)

Comment: Health care providers who prescribe, perform insertions, and/or perform removals of **Probuphine** must successfully complete a live training program, and demonstrate procedural competency prior to inserting or removing the implants. Further information: www.ProbuphineREMS.com or 844-859-6341.

**Subutex (G)** <12 years: not established;  $\geq$ 12 years: 8 mg in a single dose on day 1; then 16 mg in a single dose on day 2; target dose is 16 mg/day in a single dose; dissolve under tongue; do not chew <u>or</u> swallow whole

SL tab (lemon-lime) or SL film (lime): 2, 8 mg (30/pck)

### OPIOID PARTIAL AGONIST-ANTAGONIST/OPIOID ANTAGONIST

**Comment: Bunavail, Suboxone, Sucartonone,** *Troxyca ER*, and **Zubsolv** maintenance are allowed only by approved providers with strict state and federal regulations.

### buprenorphine/naloxone (C)(III)

**Bunavail** <16 years: not recommended; ≥16 years: administer one buccal film once daily at the same time each day; target dose is 8.4/1.4 once daily; place the side of the **Bunavail** film with the text (BN2, BN4, or BN6) against the inside of the cheek; press and hold the film in place for 5 seconds; maintenance is usually 2.1/0.3 to 12.6/2.1 once daily

SL film:

Bunavail 2.1/0.3 bup 2.1 mg/nal 0.3 mg (lime) (30/carton) Bunavail 4.2/0.7 bup 4.2 mg/nal 0.7 mg (lime) (30/carton) Bunavail 6.3/1 bup 6.3 mg/nal 1 mg (lime) (30/carton)

Comment: A Bunavail 4.2/0.7 mg buccal film provides equivalent buprenorphine exposure to a Sucartonone 8/2 mg sublingual tablet. Suboxone (G) <12 years: not recommended; ≥12 years: adjust dose in increments/decrements of 2 mg/0.5 mg or 4 mg/1 mg once daily buprenorphine/naloxone, based on the patient's daily dose of buprenorphine, to a level that suppresses opioid withdrawal signs and symptoms; Recommended target dosage: 16 mg/4 mg as a single daily dose; Maintenance dose: generally in the range of 4 mg/1 mg to 24 mg/6 mg per day; higher once daily doses have not been demonstrated to provide any clinical advantage

SL tab, SL film:

Suboxone 2/0.5 bup 2 mg/nal 0.5 mg (lime) (30/bottle)

Suboxone 8/2 bup 8 mg/nal 2 mg (lime) (30/bottle)

Sucartonone <12 years: not recommended; ≥12 years: adjust in 2-4 mg of *buprenorphine*/day in a single dose; usual range is 4-24 mg/day in a single dose; target dose is 6 mg/day in a single dose; dissolve under tongue; do not chew or swallow whole *SL film* (lime):

**Sucartonone 2/0.5** *bup* 2 mg/*nal* 0.5 mg (30/pck)

Sucartonone 4/1 bup 4 mg/nal 1 mg (30/pck)

Sucartonone 8/2 bup 8 mg/nal 2 mg (30/pck)

Sucartonone 12/3 bup 12 mg/nal 3 mg (30/pck)

**Zubsolv** <16 years: not recommended;  $\geq$ 16 years: initial induction with *buprenorphine* sublingual tabs; administer as a single dose once daily; titrate dose in increments of 1.4/0.36 or 2.9/0.72 per day; recommended target dose is 11.4/2.9 per day; usual max 17.2/4.2 per day

SL tab:

**Zubsolv 1.4/0.36** *bup* 1.4 mg/*nal* 0.36 mg **Zubsolv 2.9/0.72** *bup* 2.9 mg/*nal* 0.71 mg

**Zubsolv 5.7/1.4** *bup* 5.7 mg/*nal* 1.4 mg

**Zubsolv 5.**7/1.4 *bup* 5.7 mg/*nal* 1.4 mg **Zubsolv 8.6/2.1** *bup* 8.6 mg/*nal* 2.1 mg

**Zubsolv 11.4/2.9** *bup* 11.4 mg/*nal* 2.9 mg

Comment: One Subutex 5.7/1.4 SL tab is bioequivalent to one Sucartonone 8/2 SL film.

oxycodone/naloxone (C)(II) <18 years: not recommended; ≥18 years: Opioid-naïve and opioid non-tolerant: initially 10 mg/1.2 mg q 12 hours; Opioid-tolerant: single doses greater than 40 mg/4.8 mg, or a total daily dose greater than 80 mg/9.6 mg are only for use in patients for whom tolerance to an opioid of comparable potency has been established; swallow whole, or sprinkle contents on applesauce and swallow immediately without chewing
</p>

Troxyca ER

Cap: Troxyca ER 10/1.2 oxy 10 mg/nalox 1.2 mg ext-rel

Troxyca ER 20/1.2 oxy 20 mg/nalox 2.4 mg ext-rel Troxyca ER 30/1.2 oxy 30 mg/nalox 3.6 mg ext-rel Troxyca ER 40/1.2 oxy 40 mg/nalox 4.8 mg ext-rel Troxyca ER 60/1.2 oxy 60 mg/nalox 7.2 mg ext-rel Troxyca ER 80/1.2 oxy 80 mg/nalox 9.6 mg ext-rel

Comment: Opioid-tolerant patients are those taking, for one week <u>or</u> longer, at least 60 mg oral *morphine* per day, 25 mcg transdermal *fentanyl* per hour, 30 mg oral *oxycodone* per day, 8 mg oral *hydromorphone* per day, 25 mg oral *oxymorphone* per day, 60 mg oral *hydrocodone* per day, <u>or</u> an equianalgesic dose of another opioid.

# OPIOID-INDUCED CONSTIPATION (OIC)

- ▶ lubiprostone (C) <18 years: not established; ≥18 years: swallow whole; take with food and water; initially 24 mcg bid; Moderate hepatic impairment (Child Pugh Class B): 16 mg bid; Severe hepatic impairment (Child Pugh Class C): 8 mg bid Amitiza Cap: 8, 24 mg</p>
- methylnaltrexone bromide (C) <18 years: not established; ≥18 years: one oral dose or one weight-based SC dose every other day as needed; max one dose per 24 hours; administer SC inject into the upper arm, abdomen, or thigh; rotate sites Chronic Non-cancer Pain: 450 mg po once daily in the morning (take with water on an empty stomach at least 30 minutes before the first meal of the day) or 12 mg SC once daily in the morning; Severe Hepatic Impairment: <38 kg: 0.075 mg/kg; 38-<62 kg: 4 mg (0.2 ml); 62-114 kg: 6 mg (0.3 ml); >114 kg: 0.075 mg/kg Advanced Illness, Receiving Palliative Care: <38 kg: 0.15 mg/kg; 38-<62 kg: 8 mg (0.4 ml); 62-114 kg: 12 mg (0.6 ml); >114 kg: 0.15 mg/kg; Moderate and Severe Renal Impairment (CrCl<60 mL/min): <38 kg: 0.075 mg/kg; 38-<62 kg: 4 mg (0.2 ml); 62-114 kg: 6 mg (0.3 ml); >114 kg: 0.075 mg/kg

Relistor Tab: 150 mg film-coat; Vial: 12 mg single-dose (0.6 ml, 7/carton); Prefilled syringe: 8 mg (0.4 ml), 12 mg (0.6 ml) (7/carton)

Comment: *methylnaltrexone* is a selective antagonist of opioid binding at the mu-opioid receptor. As a quaternary amine, the ability of *methylnaltrexone* to cross the blood-brain barrier is restricted. This allows *methylnaltrexone* to function as a peripherally-acting muopioid receptor antagonist in tissues such as the gastrointestinal tract, thereby decreasing the constipating effects of opioids without impacting opioid-mediated analysis effects on the central nervous system. The pre-filled syringe is only for patients who require a **Relistor** injection dose of 8 mg or 12 mg. Use the vial for patients who require other doses. Relistor is contraindicated with known or suspected GI obstruction and patients at increased risk of recurrent obstruction, due to the potential for gastrointestinal perforation. Be within close proximity to toilet facilities once **Relistor** is administered. Discontinue all maintenance laxative therapy prior to initiation. Laxative(s) can be used as needed if there is a suboptimal response after three days. Discontinue if treatment with the opioid pain medication is also discontinued. Safety and effectiveness of Relistor have not been established in pediatric patients. Avoid concomitant use with other opioid antagonists because of the potential for additive effects of opioid receptor antagonism and increased risk of opioid withdrawal symptoms (sweating, chills, diarrhea, abdominal pain, anxiety, and yawning). Advise females of reproductive potential, who become pregnant or are planning to become pregnant, that the use of Relistor during pregnancy may precipitate opioid

withdrawal in a fetus due to the undeveloped blood-brain barrier. Breastfeeding is not recommended during treatment.

naloxegol (C) <18 years: not established; ≥18 years: swallow whole; take on an empty stomach; initially 25 mg once daily in the AM; discontinue other laxatives; 
 CrCl <60 mL/min: 12.5 mg
</p>

Movantik Tab: 12.5, 25 mg

# OPIOID OVERDOSE

### **OPIOID ANTAGONISTS**

nalmefene (B) <12 years: not recommended; ≥12 years: initially 0.25 mcg/kg IV, IM, or SC, then incremental doses of 0.25 mcg/kg at 2-5 minute intervals; cumulative max 1 mcg/kg; if opioid dependency suspected use 0.1 mg/70 kg initially and then proceed as usual if no response in 2 minutes
</p>

Revex Amp: 100 mcg/1 ml (1 ml); 1 mg/ml (2 ml)

naloxone (B)(G) <12 years: 0.01 mg/kg initially, repeat in 2-3 minutes at 0.1 mg/kg
 if response inadequate; ≥12 years: 0.4-2 mg; repeat in 2-3 minutes if no response
 Evzio Prefilled autoinjector: 0.4 mg/0.4 ml IM/SC only
</p>

Narcan Vial/Amp: 0.4 mg/ml (1 ml), 1 mg/ml (2 ml); Prefilled syringe: 0.4 mg ml (1 ml), 1 mg/ml (2 ml) IV, IM, or SC (parabens-free)

Comment: If the electronic voice instruction system does not operate properly, Evzio will still deliver the intended dose of *naloxone* when used according to the printed instructions on the flat surface of the autoinjector label. Evzio cannot be administered IV. Due to the short duration of action of naloxone, as compared to opioids which are longer acting, monitoring of the patient is critical as the opioid reversal effects of naloxone may wear off before the effects of the opioid.

Narcan Nasal Spray position supine with head tilted back; 1 spray in one nostril; if an additional dose is needed, spray into the opposite nostril

Nasal spray: 4 mg/0.1 ml, single dose, single use (2 blister pcks, each w a single nasal spray/carton)

# OSGOOD-SCHLATTER DISEASE

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488

# OSTEOARTHRITIS

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### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0.075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

**Double Cap (OTC)** *Crm*: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC)  $Emol\ crm: 0.075\%\ (1, 2\ oz)$ 

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

### **ORAL SALICYLATE**

indomethacin (C) <14 years: usually not recommended; ≥2 years, if risk warranted: 1-2 mg/kg/day in divided doses; max 3-4 mg/kg/day (or 150-200 mg/day, whichever is less); <14 years, ER cap not recommended; ≥14 years: initially 25 mg bid to tid, increase as needed at weekly intervals by 25-50 mg/day; max 200 mg/day</p>

Cap: 25, 50 mg; Susp; 25 mg/5 ml (pineapple-coconut, mint) (alcohol 1%); Supp: 50 mg; ER Cap: 75 mg ext-rel

Comment: *indomethacin* is indicated only for acute painful flares. Administer with food and/or antacids. Use lowest effective dose for shortest duration.

### **ORAL NSAIDs**

See more Oral NSAIDs page 490

diclofenac (C) <18 years: not recommended; ≥18 years: take on empty stomach; 35 mg tid; Hepatic impairment: use lowest dose
</p>

Zorvolex Gelcap: 18, 35 mg

*diclofenac sodium* (C) <18 years: not recommended; ≥18 years:

Voltaren 50 mg bid to qid or 75 mg bid or 25 mg qid with an additional 25 mg at HS if necessary

Tab: 25, 50, 75 mg ent-coat

Voltaren XR 100 mg once daily; rarely, 100 mg bid may be used *Tab*: 100 mg ext-rel

### ORAL NSAIDS PLUS PPI

Vimovo *Tab: nap* 375 mg/eso 20 mg ext-rel; *nap* 500 mg/eso 20 mg ext-rel Comment: Vimovo is indicated to improve signs/symptoms, and risk of gastric ulcer in patients at risk of developing NSAID-associated gastric ulcer.

### COX-2 INHIBITORS

Comment: Cox-2 inhibitors are contraindicated with history of asthma, urticaria, and allergic-type reactions to *aspirin*, other NSAIDs, and sulfonamides, 3rd trimester of pregnancy, and coronary artery bypass graft (CABG) surgery.

celecoxib (C)(G) <18 years: not recommended; ≥18 years: 100-400 mg daily bid; max 800 mg/day

Celebrex Cap: 50, 100, 200, 400 mg

*▶* meloxicam (C)(G)

Mobic <2 years, <60 kg: not recommended; ≥2, >60 kg: 0.125 mg/kg; max 7.5 mg once daily; ≥18 years: initially 7.5 mg once daily; max 15 mg once daily; Hemodialysis: max 7.5 mg/day

*Tab*: 7.5, 15 mg; *Oral susp*: 7.5 mg/5 ml (100 ml) (raspberry)

Vivlodex <18 years: not established; ≥18 years: initially 5 mg qd; may increase to max 10 mg/day; Hemodialysis: max 5 mg/day

Cap: 5, 10 mg

### INTRA-ARTICULAR INJECTION

➤ sodium hyaluronate (B) <12 years: not recommended; using strict aseptic technique, administer by intra-articular injection (into the synovial space) once weekly for the prescribed number of weeks (see mfr pkg insert); after preparing the injection site and attaining local analgesia, remove joint synovial fluid or effusion prior to injection

Gelsyn-3 Syringe: 8.4 mg/ml (2 ml) prefilled

**Hyalgan** Vial: 20 mg (2 ml); Prefilled syringe: 20 mg (2 ml)

Hylan *Syringe*: 48 mg/6 ml (6 ml) prefilled **Synvisc One** *Syringe*: 46 mg/6 ml (6 ml) prefilled

# OSTEOPOROSIS

Comment: Prior to initiating, or concomitant prescribing, corticosteroids in patients at risk for, or diagnosed with, osteoporosis, referral to the following ACR guidelines is recommended: Guidelines on Prevention & Treatment of Glucocorticoid-induced Osteoporosis [press release]. Atlanta, GA. American College of Rheumatology; June 7, 2017. https://www.rheumatology.org/About-Us/Newsroom/Press-Releases/ID/812/ACR-Releases-Guideline-on-Prevention-Treatment-of-Glucocorticoid-Induced-Osteoporosis. Indications for bone density screening include: personal history of fragility fracture, presence of high serum markers of bone resorption, smoker, height >67 inches, weight <125 lb, taking a steroid, GnRH agonist, or antiseizure drug, immobilization, hyperthyroidism, post transplantation, malabsorption syndrome, hyperparathyroidism, prolactinemia. Foods high in calcium include almonds, broccoli, baked beans, salmon, sardines, buttermilk, turnip greens, collard greens, spinach, pumpkin, rhubarb, and bran. *Recommended daily calcium intake*: 1-3 years: 700 mg; 4-8 years: 1,000 mg; 9-18 years: 1,300 mg; >18 years: 1,000 mg; pregnancy or nursing: 1,000-1,300 mg.

### CALCIUM SUPPLEMENTS

Comment: Take *calcium* supplements with meals to avoid gastric upset. Dosages of calcium over 2000 mg/day have not demonstrated any additional benefit. *Calcium* decreases *tetracycline* absorption. *Calcium* absorption is decreased by corticosteroids.

### calcitonin-salmon (C)

Fortical 200 IU intranasally daily; alternate nostrils each day

Nasal spray: 200 IU/actuation (30 doses, 3.7 ml)

Miacalcin Nasal Spray 200 IU spray in one nostril once daily; alternate nostrils each day

Nasal spray: 200 IU/actuation (30 doses, 3.7 ml)

Miacalcin Injection 100 units SC or IM every other day

Vial: 200 units/ml (2 ml)

Comment: Supplement diet with calcium (1 gm/day) and vitamin D (400 IU/day).

► calcium carbonate (C)(OTC)(G)

Rolaids chew 2 tabs bid; max 14 tabs/day

Chew tab: 550 mg

Rolaids Extra Strength chew 2 tabs bid; max 8 tabs/day

Chew tab: 1000 mg

Tums chew 2 tabs bid; max 16 tabs/day

Chew tab: 500 mg

Tums Extra Strength chew 2 tabs bid; max 10 tabs/day

Chew tab: 750 mg

Tums Ultra chew 2 tabs bid; max 8 tabs/day

Chew tab: 1000 mg

Os-Cal 500 (OTC) 1-2 tab bid to tid

Chew tab: elemental calcium carbonate 500 mg

### calcium carbonate/vitamin d (C)(G)

Os-Cal 250+D (OTC) 1-2 tab tid

Tab: elemental calcium carbonate 250 mg/vit d 125 IU

Os-Cal 500+D (OTC) 1-2 tab bid-tid

Tab: elemental calcium carbonate 500 mg/vit d 125 IU

Viactiv (OTC) 1 tab tid

Chew tab: elemental calcium 500 mg/vit d 100 IU/vitamin k 40 mcg

### ≥ calcium citrate (C)(G)

Citracal (OTC) 1-2 tabs bid

Tab: elemental calcium citrate 200 mg

calcium citrate/vitamin d (C)(G)

Citracal +D (OTC) 1-2 cplts bid

Cplt: elemental calcium citrate 315 mg/vit d 200 IU

Citracal 250+D (OTC) 1-2 tabs bid

Tab: elemental calcium citrate 250 mg/vit d 62.3 IU

### VITAMIN D ANALOGS

Comment: Concurrent *vitamin D* supplementation is contraindicated for patients taking *calcitriol* or *doxercalciferol* due to the risk of *vitamin D* toxicity.

calcitriol (C) <12 years: Predialysis: <3 years: 10-15 ng/kg/day; ≥3 years: initially 0.25 mcg daily; may increase to 0.5 mcg/day; Dialysis: not recommended; Hypoparathyroidism: initially 0.25 mcg daily; may increase by 0.25 mcg/day at 2-4 week intervals; usual maintenance (1-5 years) 0.25-0.75 mcg/day, (>6 years) 0.5-2 mcg/day; ≥12 years: Predialysis: initially 0.25 mcg daily; may increase by 0.25 mcg/day at 4-8 week intervals; usual maintenance 0.5-1 mcg/day; Hypoparathyroidism: initially 0.25 mcg q AM; may increase by 0.25 mcg/day at 4- to 8-week intervals; usual maintenance 0.5-2 mcg/day

Rocaltrol Cap: 0.25, 0.5 mcg

Rocaltrol Solution Soln: 1 mcg/ml (15 ml, single-use dispensers)

doxercalciferol (C) <12 years: initially 0.25 mcg daily; may increase by 0.25 mcg;
 0.25 mcg/day at 2-4 week intervals; usual maintenance (1-5 years) 0.25-0.75 mcg/day, (≥6 years) 0.5-2 mcg/day; ≥12 weeks: initially 0.25 mcg q AM; may increase by 0.25 mcg/day at 4-8 week intervals; usual maintenance 0.5-2 mcg/day
</p>

Hectorol Cap: 0.25, 0.5 mcg

## **BISPHOSPHONATES (CALCIUM MODIFIERS)**

Comment: bisphosphonates should be swallowed whole in the AM with 6-8 oz of plain water 30 minutes before first meal, beverage, or other medications of the day. Monitor serum alkaline phosphatase. Contraindications include abnormalities of the esophagus which delay esophageal emptying such as stricture or achalasia, inability to stand or sit upright for at least 30 minutes post-dose, patients at risk of aspiration, and hypocalcemia. Co-administration of bisphosphonates and calcium, antacids, or oral medications containing multivalent cations will interfere with absorption of the biphosphonate. Therefore, instruct patients to wait at least half hour after taking the biphosphonate before taking any other oral medications.

alendronate (as sodium) (C) <12 years: not recommended; ≥12 years: take once weekly, in the AM, 30 minutes before the first food, beverage, or medication of the day; do not lie down (remain upright) for at least 30 minutes and after the first food of the day; CrCl <35 mL/min: not recommended
</p>

**Binosto** dissolve the effervescent tab in 4 oz (120 ml) of plain, room temperature, water (not mineral <u>or</u> flavored); wait 5 minutes after the effervescence has subsided, then stir for 10 seconds, then drink

*Tab*: 70 mg effervescent for buffered solution (4, 12/carton) (strawberry) **Fosamax** (**G**) swallow tab whole; dosing regimens are the same for males and females; *Prevention*: 5 mg once daily or 35 mg once weekly; *Treatment*: 10 mg once daily or 70 mg once weekly

Tab: 5, 10, 35, 40, 70 mg

alendronate/cholecalciferol (vit d3) (C)(G) < 12 years: not recommended; ≥12 years: take 1 tab once weekly, in the AM, with plain water (not mineral) 30 minutes before the first food, beverage, or medication of the day; do not lie down (remain upright) for at least 30 minutes and after the first food of the day
</p>

Fosamax Plus D

Tab: Fosamax Plus D 70/2800: alen 70 mg/chole 2,800 IU Fosamax Plus D 70/5600: alen 70 mg/chole 5,600 IU

ibandronate (as monosodium monohydrate) (C)(G) <18 years: not recommended; ≥18 years:

Boniva take 2.5 mg once daily or 150 mg once monthly on the same day; take in the AM, with plain water (not mineral) 60 minutes before the first food, beverage, or medication of the day; do not lie down (remain upright) for at least 30 minutes and after the first food of the day

Tab: 2.5, 150 mg

**Boniva Injection** administer 3 mg every 3 months by IV bolus over 15-30 seconds; if dose is missed, administer as soon as possible; then every 3 months from the date of the last dose

Prefilled syringe: 3 mg/3 ml (5 ml)

**Comment:** Boniva Injection must be administered by a health care professional.

▶ risedronate (as sodium) (C)(G) take in the AM; swallow whole with a full glass of plain water (not mineral); do not lie down (remain upright) for 30 minutes afterward Actonel <12 years: not recommended; ≥12 years: take at least 30 minutes before any food or drink; Females: 5 mg once daily or 35 mg once weekly or 75 mg on two consecutive days monthly or 150 mg once monthly; Males: 35 mg once weekly</p>

Tab: 5, 30, 35, 75, 150 mg

Atelvia <12 years: not recommended; ≥12 years: 35 mg once weekly immediately after breakfast

Tab: 35 mg del-rel

risedronate/calcium (C) <12 years: not recommended; ≥12 years: 1 x 5 mg risedronate tab weekly <u>plus</u> 1 x 500 mg calcium tab on days 2-7 weekly

Actonel with Calcium Tab: risedronate 5 mg and Tab: calcium 500 mg (4 risedronate tabs + 30 calcium tabs/pck)

≥ zoledronic acid (D)(G)

Reclast <12 years: not recommended; ≥12 years: administer 5 mg via IV infusion over at least 15 minutes mg once a year (for osteoporosis) or once every 2 years (for osteopenia or prophylaxis)

Bottle: 5 mg/100 ml (single dose)

Comment: Reclast is indicated for the treatment of postmenopausal osteoporosis in females who are at high risk for fracture and to increase bone mass in men with primary or hypogonadal osteoporosis who are at high risk for fracture. Administered by a health care professional. Contraindicated in hypocalcemia. Zometa Bottle: 4 mg/5 ml administer 4 mg via IV infusion over at least 15 minutes every 3-4 weeks; optimal duration of treatment not known Vial: 4 mg/5 ml (single dose)

**Comment: Zometa** is indicated for the treatment of hypercalcemia of malignancy. The safety and efficacy of **Zometa** in the treatment of hypercalcemia associated with hyperparathyroidism <u>or</u> with other non-tumor-related conditions has not been established.

# SELECTIVE ESTROGEN RECEPTOR MODULATOR (SERMs)

raloxifene (X)(G) <12 years: not recommended; ≥12 years: 60 mg once daily
 Evista Tab: 60 mg
</p>

**Comment**: Contraindicated in females who have history of, <u>or</u> current, venous thrombotic event.

# **HUMAN PARATHYROID HORMONE**

teriparatide (C) <12 years: not recommended; ≥12 years: 20 mcg SC daily in the thigh or abdomen; may treat for up to 2 years
</p>

Forteo Multidose Pen Multidose pen: 250 mcg/ml (3 ml)

**Comment: Forteo** is indicated for the treatment of postmenopausal osteoporosis in females who are at high risk for fracture and to increase bone mass in men with primary or hypogonadal osteoporosis who are at high risk for fracture.

#### BIOENGINEERED REPLICA OF HUMAN PARATHYROID HORMONE

bioengineered replica of human parathyroid hormone (C) <12 years: not recommended; ≥12 years: initially inject mg IM into the thigh once daily; when initiating, decrease dose of active vitamin D by 50% if serum calcium is above 7.5 mg/dL;</p>

monitor serum *calcium* levels every 3 to 7 days after starting <u>or</u> adjusting dose and when adjusting either active *vitamin D* or *calcium* supplements dose

Natpara Soln for inj: 25, 50, 75, 100 mcg (2/pkg) multidose, dual-chamber glass cartridge containing a sterile powder and diluent

Comment: Natpara is indicated as adjunct to calcium and vitamin D in patients with parathyroidism.

# OSTEOCLAST INHIBITOR (RANKL INHIBITOR)

denosumab (X) <12 years: not recommended; ≥12 years: for SC injection 60 mcg
 SC once every 6 months in the upper arm, abdomen, or upper thigh
</p>

Prolia Vial/Pen: 60 mg/ml (1 ml) single dose

**Comment: Prolia** is indicated for the treatment of postmenopausal osteoporosis in females who are at high risk for fracture defined as a history of osteoporotic fracture, or multiple risk factors for fracture, or patients who have failed or are intolerant to other therapy. Administered by a health care professional. Contraindicated in hypocalcemia.

# HUMAN PARATHYROID HORMONE RELATED PEPTIDE (PTHRP [1-34]) ANALOG

► abaloparatide 80 mcg (40 mcl) SC once daily

Tymlos Pen: 80 mcg/40 mcl (1.56 ml, 2,000 mcg/ml) (30 doses) preassembled, single-patient use, disposable w/glass cartridge

Comment: Tymlos is a bone building agent for the treatment of postmenopausal women with osteoporosis at high risk for fracture. Tymlos is not indicated for use in females of reproductive potential. There are no human data with use in pregnant women to inform any drug associated risks and animal reproduction studies with *abaloparatide* have not been conducted. There is no information on the presence of *abaloparatide* in human milk, the effects on the breastfed infant, or the effects on milk production; however, breastfeeding is not recommended while using Tymlos. Tymlos is not recommended for use in pediatric patients with open epiphyses or hereditary disorders predisposing to osteosarcoma because of an increased baseline risk of osteosarcoma. Tymlos may cause hypercalciuria. It is unknown whether Tymlos may exacerbate urolithiasis in patients with active or a history of urolithiasis. If active urolithiasis or pre-existing hypercalciuria is suspected, measurement of urinary calcium excretion should be considered. No dosage adjustment is required for patients any degree of renal impairment. Currently, there are no specific drug-drug interaction studies.



# **OTITIS EXTERNA**

# OTIC ANALGESIC

#### OTIC ANTI-INFECTIVE

chloroxylenol/pramoxine (C) <1 year: not recommended; 1-12 years: 5 drops bid x 10 days; >12 years: 4-5 drops tid x 5-10 days

PramOtic Otic drops: chlorox/pramox (5 ml w. dropper)

- Finafloxacin (C) <1 year: not recommended; ≥1 year: 4-5 drops tid x 5-10 days Xtoro Otic soln: 0.3% (5, 8 ml)
- ofloxacin (C)(G) <1 year: not recommended; 1-12 years: 5 drops bid x 10 days; >12 years: 10 drops bid x 10 days

Floxin Otic Otic soln: 0.3% (5, 10 ml w. dropper; 0.25 ml, 5 drop singles, 20/carton) Comment: Floxin Otic is indicated for patients ≥18 years with perforated tympanic membranes and pediatric patients with PE tubes.

# OTIC ANTI-INFECTIVE/CORTICOSTEROID COMBINATIONS

Cortane B, Otic soln: chlo 1 mg/pram 10 mg/hydro 10 mg per ml (10 ml w. dropper)

Comment: Cortane B Aqueous may be used to saturate a cotton wick.

ciprofloxacin/hydrocortisone (C) <1 year: not recommended; ≥1 year: 3 drops bid
 x 7 days
</p>

Cipro HC Otic Otic susp: cipro 0.2%/hydro 1% (10 ml w. dropper)

ciprofloxacin/dexamethasone (C) <6 months: not recommended; ≥6 months: 4
 drops bid x 7 days
</p>

Ciprodex Otic susp: cipro 0.3%/dexa 1% (7.5 ml)

**Comment:** Ciprodex is indicated for the treatment of otitis media in pediatric patients with tympanostomy tubes.

Colistin/neomycin/hydrocortisone/thonzonium (C) <12 years: 4 drops tid-qid x 5-10 days; ≥12 years: 5 drops tid or qid x 5-10 days
</p>

Coly-Mycin S Otic susp: 5, 10 ml

Cortisporin-TC Otic Otic Susp: colis 3 mg/neo 3.3 mg/hydro 10 mg/thon 0.5 mg per ml (10 ml w. dropper) (thimerosal)

polymyxin b/neomycin/hydrocortisone (C) <12 years: 3 drops tid-qid; max 10 days; 4 drops tid-qid; ≥12 years: max 10 days

Cortisporin Otic Suspension Otic susp: poly b 10,000 u/neo 3.5 mg/hydro 10 mg per 5 ml (10 ml w. dropper)

Cortisporin Otic Solution *Otic soln: poly b* 10000 u/*neo* 3.5 mg/*hydro* 10 mg per 5 ml (10 ml w. dropper)

#### OTIC ASTRINGENTS

acetic acid 2% in aluminum sulfate (C) 4-6 drops q 2-3 hours

Domeboro Otic Otic soln: 60 ml w. dropper

acetic acid/propylene glycol/benzethonium chloride/sodium acetate (C) 3-5 drops q 4-6 hours

VoSol Otic soln: acet 2% (15, 30 ml)

acetic acid/propylene glycol/hydrocortisone/benzethonium chloride/sodium acetate
 (C) 3-5 drops q 4-6 hours

**VoSol HC** *Otic soln: acet* 2%/hydro 1% (10 ml)

# OTIC ANESTHETIC/ANALGESIC COMBINATIONS

A/B Otic Otic soln: 15 ml w. dropper

**benzocaine** (C) <1 year: not recommended; ≥1 year: 4-5 drops q 1-2 hours

Americaine Otic Otic soln: 20% (15 ml w. dropper)

Benzotic Otic soln: 20% (15 ml w. dropper)

#### SYSTEMIC ANTI-INFECTIVES

Comment: Used for severe disease or with culture.

*→* amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

*Tab*: 1000\*mg ext-rel

cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg in 2 or 3 divided doses x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 250-500 mg q 8 hours x 7-10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days; clinically equivalent to 250 mg immed-rel caps tid; swallow whole; take with meals

*Tab*: 375, 500 mg ext-rel

dicloxacillin (B) <12 years: 12.5-25 mg/kg/day in 4 divided doses x 10 days; see page 560 for dose by weight table; ≥12 years: 500 mg q 6 hours x 10 days
</p>

Dynapen Cap: 125, 250, 500 mg; Oral susp: 62.5 mg/5 ml (80, 100, 200 ml)

trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

**Bactrim DS, Septra DS** <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)



# **OTITIS MEDIA: ACUTE**

# OTIC ANALGESIC

➤ antipyrine/benzocaine/zinc acetate dihydrate otic (C) fill ear canal with solution; then insert cotton plug into meatus; may repeat every 1-2 hours prn

Otozin Otic soln: antipyr 5.4%/benz 1%/zinc1% per ml (10 ml w. dropper)

# SYSTEMIC ANTI-INFECTIVES

amoxicillin (B)(G) <40 kg (88 lb): 80-100 mg/kg/day divided q 12 hours x 10 days; see page 543 for dose by weight table; ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

**Trimox** *Tab*: 125, 250 mg; *Cap*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

Comment: Consider 80-90 mg/kg/day in 3 divided doses for resistant for cases > amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

 $Oral\ susp: 600\ mg/5\ ml\ (50, 75, 100, 125, 150, 200\ ml)$  (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

> ampicillin (B) <12 years: 50-100 mg/kg/day in 4 divided doses x 10 days; see page 547 for dose by weight table; ≥12 years: 250-500 mg qid x 10 days</p>

Omnipen, Principen Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (100, 150, 200 ml) (fruit)

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 250-500 mg q 8 hours x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

Tab: 375, 500 mg ext-rel

cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; ≥12 years: 300 mg bid x 10 days or 600 mg daily x 10 days</p>

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

cefixime (B)(G) <6 months: not recommended; 6 months-12 years, <50 kg: 8 mg/kg/day in 1-2 divided doses x 10 days; see page 552 for dose by weight table; >12 years, >50 kg: 400 mg once daily x 10 days

**Suprax** *Tab*: 400 mg; *Cap*: 400 mg; *Oral susp*: 100, 200, 500 mg/5 ml (50, 75, 100 ml) (strawberry)

- > cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 5 days; see page 553 for dose by weight table; >12 years: 100 mg bid x 5 days
- cefprozil (B) ≤6 months: not recommended; 6 months-12 years: 7.5 mg/kg bid x 10 days; see page 554 for dose by weight table; >12 years: 250-500 mg bid or 500 mg daily x 10 days

Cefzil *Tab*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)

ceftibuten (B) <12 years: 9 mg/kg daily x 10 days; max 400 mg/day; see page 555 for dose by weight table; ≥12 years: 400 mg daily x 10 days</p>

Cedax Cap: 400 mg; Oral susp: 90 mg/5 ml (30, 60, 90, 120 ml); 180 mg/5 ml (30, 60, 120 ml) (cherry)

ceftriaxone (B)(G) <12 years: 50 mg/kg IM x 1 dose; ≥12 years: 1-2 gm IM x 1 dose; max 4 g</p>

Rocephin Vial: 250, 500 mg; 1, 2 g

cefuroxime axetil (B)(G) <12 years: 15 mg/kg bid x 10 days; see page 556 for dose by weight table; ≥12 years: 250-500 mg bid x 10 days
</p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 250 mg qid x 10 days</p>

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/kg divided bid x 7 days; see page 558 for dose by weight table; >12 years: 500 mg bid or 500 mg ext-rel daily

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

erythromycin/sulfisoxazole (C)(G) <2 months: not recommended; ≥2 months: 50 mg/kg/day in 3 divided doses x 10 days
</p>

Eryzole Oral susp: eryth 200 mg/sulf 600 mg per 5 ml (100, 150, 200, 250 ml)

Pediazole Oral susp: eryth 200 mg/sulf 600 mg per 5 ml (100, 150, 200 ml) (strawberry-banana)

Comment: *erythromycin* may increase INR with concomitant *warfarin*, as well as increase serum level of *digoxin*, benzodiazepines, and statins. *Sulfamethoxazole* is not recommended in pregnancy or lactation. *CrCl* 15-30 mL/min: reduce dose by 1/2: CrCl < 15 mL/min: not recommended.

loracarbef (B) <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 570 for dose by weight table; ≥12 years: 400 mg bid x 10 days</p>

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

► trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

# OTIC ANTI-INFECTIVE

ofloxacin (C)(G) <6 months: not recommended; 6 months-12 years: 5 drops bid x 14 days; >12 years: 10 drops bid x 14 days

Floxin Otic *Otic soln*: 0.3% (5, 10 ml w. dropper)

Comment: *ofloxacin* may be used with patients with perforated tympanic membrane <u>or</u> tympanostomy tubes.

#### OTIC ANTI-INFECTIVE/CORTICOSTEROID COMBINATIONS

Comment: *neomycin* may cause ototoxicity. Do not use with known <u>or</u> suspected tympanic membrane rupture.

Cortane Ear Drops, Otic drops: 10 ml

ciprofloxacin/hydrocortisone (C) <1 year: not recommended; ≥1 year: 3 drops bid
 x 7 days
</p>

Cipro HC Otic susp: cipro 0.3%/dexa 0.1% (10 ml)

ciprofloxacin/dexamethasone (C) <6 months: not recommended; ≥6 months: 4
 drops bid x 7 days
</p>

Ciprodex Otic susp: cipro 0.3%/dexa 1% (7.5 ml)

**Comment: Ciprodex** is indicated for the treatment of otitis media in pediatric patients with tympanostomy tubes (PE tubes).

Colistin/neomycin/hydrocortisone/thonzonium (C) <12 years: 4 drops tid-qid x 5-10 days; ≥12 years: 5 drops tid-qid x 5-10 days
</p>

Coly-Mycin S Otic susp: 5, 10 ml

▶ polymyxin b/neomycin/hydrocortisone (C)(G) <12 years: 3 drops tid-qid; max 10 days; ≥12 years: 4 drops tid-qid; max 10 days</p>

Cortisporin Otic susp: 10 ml w. dropper; Otic soln: 10 ml w. dropper

PediOtic Otic susp: 7.5 ml w. dropper

polymyxin B/neomycin/hydrocortisone/surfactant (C) <12 years: 3 drops tid-qid; max 10 days; ≥12 years: 4 drops tid-qid

Cortisporin-TC Otic susp: 10 ml w. dropper

# OTIC ANESTHETIC/ANALGESIC COMBINATIONS

A/B Otic Otic soln: antipy 5.4%/benzo 1.4% 15 ml w. dropper

benzocaine (C)(OTC)(G) <1 year: not recommended; ≥1 year: 4-5 drops q 1-2 hours</p>

Americaine Otic *Otic soln:* 15 ml w. dropper Benzotic *Otic soln:* 20% (15 ml w. dropper)



# **OTITIS MEDIA: SEROUS**

Anti-infectives see Otitis Media: Acute page 291

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Oral Corticosteroids see page 498



# PAGET'S DISEASE: BONE

Comment: Calcium decreases *tetracycline* absorption. calcium absorption is decreased by corticosteroids. calcium absorption is decreased by foods such as rhubarb, spinach, and bran.

# **BISPHOSPHONATES (CALCIUM MODIFIERS)**

Comment: Bisphosphonates should be swallowed whole in the AM with 6-8 oz of plain water 30 minutes before first meal, beverage, or other medications of the day. Monitor serum alkaline phosphatase. Contraindications include abnormalities of the esophagus, which delay esophageal emptying such as stricture or achalasia, inability to stand or sit upright for at least 30 minutes post-dose, patients at risk of aspiration, and hypocalcemia. Co-administration of bisphosphonates and calcium, antacids, or oral medications containing multivalent cations will interfere with absorption of the biphosphonate. Therefore, instruct patients to wait at least half hour after taking the biphosphonate before taking any other oral medications.

alendronate (as sodium) (C) <12 years: not recommended; ≥12 years: take once weekly, in the AM, 30 minutes before the first food, beverage, or medication of the day; do not lie down (remain upright) for at least 30 minutes and after the first food of the day; not recommended with CrCl <35 mL/min.
</p>

**Binosto** dissolve the effervescent tab in 4 oz (120 ml) of plain, room temperature, water (not mineral <u>or</u> flavored); wait 5 minutes after the effervescence has subsided, then stir for 10 seconds, then drink

*Tab*: 70 mg effervescent for buffered solution (4, 12/carton) (strawberry) **Fosamax (G)** swallow tab whole; *Prevention*: 5 mg once daily <u>or</u> 35 mg once weekly; *Treatment*: 10 mg once daily <u>or</u> 70 mg once weekly

Tab: 5, 10, 35, 40, 70 mg

alendronate/cholecalciferol (vit d3) (C)(G) 12 years: not recommended; ≥12 years: take 1 tab once weekly, in the AM, with plain water (not mineral) 30 minutes before the first food, beverage, or medication of the day; do not lie down (remain upright) for at least 30 minutes and after the first food of the day

Fosamax Plus D

Tab: Fosamax Plus D 70/2800 alen 70 mg/chole 2800 IU Fosamax Plus D 70/5600 alen 70 mg/chole 5600 IU

ibandronate (as monosodium monohydrate) (C)(G) <12 years: not recommended; ≥12 years:

Boniva take 2.5 mg once daily or 150 mg once monthly on the same day; take in the AM, with plain water (not mineral) 60 minutes before the first food, beverage, or medication of the day; do not lie down (remain upright) for at least 30 minutes and after the first food of the day

*Tab*: 2.5, 150 mg

**Boniva Injection** administer 3 mg every 3 months by IV bolus over 15-30 seconds; if dose is missed, administer as soon as possible, then every 3 months from the date of the last dose

Prefilled syringe: 3 mg/3 ml (5 ml)

**Comment: Boniva Injection** must be administered by a qualified health care professional.

risedronate (as sodium) (C)(G) <12 years: not recommended; ≥12 years: take in the AM; swallow whole with a full glass of plain water (not mineral) do not lie down (remain upright) for 30 minutes afterward
</p>

Actonel take at least 30 minutes before any food or drink; Females: 5 mg once daily or 35 mg once weekly or 75 mg on two consecutive days monthly or 150 mg once monthly; Males: 35 mg once weekly; Tab: 5, 30, 35, 75, 150 mg

Atelvia 35 mg once weekly immediately after breakfast *Tab*: 35 mg del-rel

Actonel with Calcium *Tab: risedronate* 5 mg and *Tab:* calcium 500 mg (4 *risedronate* tabs + 30 *calcium* tabs/pck)

> zoledronic acid (D)(G) <12 years: not recommended; ≥12 years:

Reclast administer 5 mg via IV infusion over at least 15 minutes mg once a year (for osteoporosis) or once every 2 years (for osteopenia or prophylaxis)

Bottle: 5 mg/100 ml (single dose)

Comment: Reclast is indicated for the treatment of postmenopausal osteoporosis in females who are at high risk for fracture and to increase bone mass in men with primary or hypogonadal osteoporosis who are at high risk for fracture. Must be administered by a qualified health care professional. Contraindicated in hypocalcemia.

Zometa administer 4 mg via IV infusion over at least 15 minutes every 3-4 weeks; optimal duration of treatment not known

Bottle: 4 mg/5 ml; Vial: 4 mg/5 ml (single dose)

**Comment: Zometa** is indicated for the treatment of hypercalcemia of malignancy. The safety and efficacy of **Zometa** in the treatment of hypercalcemia associated with hyperparathyroidism <u>or</u> with other non-tumor-related conditions has not been established.



# PAIN

Antidepressants see Depression page 97 Skeletal Muscle Relaxants see Muscle Strain page 261

# ACETAMINOPHEN FOR IV INFUSION

Decirios acetaminophen injectable (B) <2 years: not recommended; 2-<13 years, <50 kg: 15 mg/kg q 6 hours prn or 2.5 mg/kg q 4 hours prn; max 750 mg single dose; max 75 mg/kg per day; ≥13 years: administer by IV infusion over 15 minutes; 1,000 mg q 6 hours prn or 650 mg q 4 hours prn; max 4,000 mg/day

Ofirmev Vial: 10 mg/ml (100 ml) (preservative-free)

Comment: The Ofirmev vial is intended for single use. If any portion is withdrawn from the vial, use within 6 hours. Discard the unused portion. For pediatric patients, withdraw the intended dose and administer via syringe pump. Do not admix Ofirmev with any other drugs. Ofirmev is physically incompatible with *diazepam* and *chlorpromazine hydrochloride*.

# IBUPROFEN FOR IV INFUSION

ibuprofen (B) <6 months; not recommended; 6 months-<12 years: 10 mg/kg q 4-6 hours prn; max 400 mg/dose; max 40 mg/kg or 2,400 mg/24 hours, whichever is less; 12-<17 years: 400 mg q 4-6 hours prn; max 2,400 mg/24 hours; ≥17 years: dilute dose in 0.9% NS, D5W, or Lactated Ringers (LR) solution; administer by IV infusion over at least 10 minutes; do not administer via IV bolus or IM; 400-800 mg q 6 hours prn; maximum 3,200 mg/day

Caldolor Vial: 800 mg/8 ml single dose

Comment: Prepare Caldolor solution for IV administration as follows: 100 mg dose: dilute 1 ml of Caldolor in at least 100 ml of diluent (IVF); 200 mg dose: dilute 2 ml of Caldolor in at least 100 ml of diluent; 400 mg dose: dilute 4 ml of Caldolor in at least 100 ml of diluent; 800 mg dose: dilute 8 ml of Caldolor in at least 200 ml of diluent. Caldolor is also indicated for management of fever. For patients  $\geq 18$  years-of-age with fever, 400 mg via IV infusion, followed by 400 mg q 4-6 hours or 100-200 mg q 4 hours prn.

# **OCULAR PAIN**

difluprednate (C) <12 years: not recommended; ≥12 years: apply 1 drop to affected eye qid; for post-op ocular pain, begin treatment 24 hours post-op and continue x 2 weeks; then bid daily x 1 week; then taper
</p>

Durezol Ophth emul: 0.05% (5 ml)

Comment: Durezol is an ophthalmic steroid.

nepafenac (C) <10 years: not recommended; ≥10 years: apply 1 drop to affected eye tid; for post-op ocular pain, begin treatment 24 hours before surgery and continue day of surgery and for two weeks post-op
</p>

Nevanac Ophth susp: 0.1% (3 ml) (benzalkonium chloride)

Comment: Nevanac is an ophthalmic NSAID.

#### TOPICAL/TRANSDERMAL NSAIDs

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0,075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) *Emol crm*: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

capsaicin 8% patch (B) <18 years: not recommended; ≥18 years: apply sparingly tid-qid prn apply up to 4 patches for one 60-minute application to clean dry skin; may prep area with topical anesthetic; wear non-latex gloves; patches may be cut to size/ shape; treatment may be repeated every 3 months; remove with cleansing gel after treatment</p>

Qutenza Patch: 8% 1640 mcg/cm (179 mg) (1 or 2 patches, each w. 1-50 gm tube cleansing gel/carton)

diclofenac epolamine transdermal patch (C; D≥30 wks) <12 years: not recommended; ≥12 years: apply one patch to affected area bid; remove during bathing; avoid non-intact skin
</p>

Flector Patch Patch: 180 mg/patch (30/carton)

Description 
 Description 
 diclofenac epolamine transdermal patch (C; D≥30 wks) <12 years: not recommended; ≥12 years: apply sparingly tid-qid prn apply one patch to affected area bid; remove during bathing; avoid non-intact skin
</p>

Flector Patch Patch: 180 mg/patch (30/carton)

ightharpoonup diclofenac sodium (C; D ≥30 wks)(G) <12 years: not recommended; ≥12 years: apply sparingly to intact skin qid prn

Voltaren Gel Gel: 1% (100 gm)

diclofenac sodium (C; D ≥30 wks)(G) <18 years: not established; ≥18 years:
 Pennsaid 1.5% in 10 drop increments, dispense and rub into front, side, and back of knee: usually; 40 drops (40 mg) qid
</p>

*Topical soln:* 1.5% (150 ml)

Pennsaid 2% <12 years: not recommended; ≥12 years: apply 2 pump actuations (40 mg) and rub into front, side, and back of knee bid

Topical soln: 2% (20 mg/pump actuation, 112 gm)

Comment: Pennsaid is indicated for the treatment of pain associated with osteoarthritis of the knee.

Solaraze Gel Gel: 3% (50 gm) (benzyl alcohol)

Comment: Contraindicated with aspirin allergy. As with other NSAIDs,

Solaraze Gel should be avoided in late pregnancy (≥30 weeks) because it may cause premature closure of the ductus arteriosus.

Voltaren Gel <12 years: not recommended; ≥12 years: apply qid; avoid non-intact skin

Gel: 1% (100 gm)

**Comment**: *diclofenac* is contraindicated with *aspirin* allergy. As with other NSAIDs, **Voltaren Gel** should be avoided in late pregnancy (≥30 weeks) because it may cause premature closure of the ductus arteriosus.

Other Prescription NSAIDs see page 490

# TOPICAL/TRANSDERMAL LIDOCAINE

▶ lidocaine transdermal patch (C)(G) <12 years: not recommended; ≥12 years: apply one patch to affected area for 12 hours (then off for 12 hours); remove during bathing; avoid non-intact skin; do not reuse</p>

Lidoderm Patch: 5% (10 cm x 14 cm, 30/carton)

# OPIOIDS AND OTHER ORAL ANALGESICS

butalbital/acetaminophen (C)(G) <12 years: not recommended; ≥12 years: 1 tab q 4 hours prn; max 6 tabs/day</p>

Tab: but 50 mg/acet 325 mg

Phrenilin 1-2 tabs q 4 hours prn; max 6 tabs/day

Tab: but 50 mg/acet 325 mg

Phrenilin Forte 1 tab or cap q 4 hours prn; max 6 caps/day

Cap: but 50 mg/acet 325 mg; Tab: but 50 mg/acet 325 mg

**butalbital/acetaminophen/caffeine** (C)(G) <12 years: not recommended; ≥12 years:

Fioricet 1-2 tabs q 4 hours prn; max 6/day

Tab: but 50 mg/acet 325 mg/caf 40 mg

Zebutal 1 cap q 4 hours prn; max 5/day

Cap: but 50 mg/acet 325 mg/caf 40 mg

butalbital/aspirin/caffeine (C)(III)(G)

Fiorinal <12 years: not recommended; ≥12 years: 1-2 tabs or caps q 4 hours prn; max 6 caps/day

Tab/Cap: but 50 mg/asp 325 mg/caf 40 mg

butalbital/aspirin/codeine/caffeine (C)(III)(G)

Fiorinal with Codeine <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/ adenoidectomy pain; ≥18 years: 1-2 caps q 4 hours prn; max 6 caps/day

Cap: but 50 mg/asp 325 mg/cod 30 mg/caf 40 mg

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

codeine sulfate (C)(III)(G) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 15-60 q 4-6 hours prn; max 60 mg/day</p>

Tab: 15, 30, 60 mg

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

codeine/acetaminophen (C)(III)(G) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 15-60 mg of codeine q 4 hours prn; max 360 mg of codeine/day</p>

Tab: Tylenol #1 cod 7.5 mg/acet 300 mg (sulfites)
Tylenol #2 cod 15 mg/acet 300 mg (sulfites)
Tylenol #3 cod 30 mg/acet 300 mg (sulfites)
Tylenol #4 cod 60 mg/acet 300 mg (sulfites)

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

Tylenol with Codeine Elixir (C)(III) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 10 ml tid-qid; ≥12 year: 15-60 mg of *codeine* q 4 hours prn; max 360 mg of *codeine*/day

5-60 mg of *codeine* q 4 hours prn; max 360 mg of *codeine*/da *Elix: cod* 12 mg/*acet* 120 mg per 5 ml (cherry) (alcohol)

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

dihydrocodeine/acetaminophen/caffeine (C)(III)(G) <18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years:
</p>

Panlor DC 1-2 caps q 4-6 hours prn; max 10 caps/day

Cap: dihydro 16 mg/acet 325 mg/caf 30 mg

Panlor SS 1 tab q 4 hours prn; max 5 tabs/day

Tab: dihydro 32 mg/acet 325 mg/caf 60\*mg

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

dihydrocodeine/aspirin/caffeine (D)(III)(G) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 1-2 caps q 4 hours prn
</p>

Synalgos-DC Cap: dihydro 16 mg/asp 356.4 mg/caf 30 mg

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

▶ hydrocodone bitartrate (C)(II) <18 years: not recommended; ≥18 year:

Hysingla ER swallow whole; 1 tab once daily at the same time each day *Tab*: 20, 30, 40, 60, 80, 100, 120 mg ext-rel

Vantrela ER swallow whole; 1 tab once daily at the same time each day *Tab*: 15, 30, 45, 60, 90 mg ext-rel

**Zohydro ER** swallow whole; *Opioid naïve:* 10 mg q 12 hours; may increase by 10 mg q 12 hours every 3-7 days; when discontinuing, titrate downward every 2-4 days

Cap: 10, 15, 20, 30, 40, 50 mg ext-rel

hydrocodone bitartrate/acetaminophen (C)(II)(G) <12 years: not recommended;
 ≥12 years:
</p>

Hycet 3 tsp (15 ml) q 4-6 hours prn; max 18 tsp/day

Liq: hydro 7.5 mg/acet 325 mg per 15 ml

Lorcet 1-2 caps q 4-6 hours prn; max 8 caps/day

Cap: hydro 5 mg/acet 325 mg

Lorcet 10/650 1 tab q 4-6 hours prn; max 6 tabs/day

Tab: hydro 10 mg/acet 325 mg

Lorcet-HD 1 cap q 4-6 hours prn; max 6 tabs/day

Cap: hydro 5 mg/acet 325 mg

Lorcet Plus 1 tab q 4-6 hours prn; max 6 tabs/day *Tab: hydro* 7.5 mg/acet 325 mg

Lortab 2.5/500 1-2 tabs q 4-6 hours prn; max 8 tabs/day

Tab: hydro 2.5 mg/acet 325\*mg

Lortab 5/500 1-2 tabs q 4-6 hours prn; max 8 tabs/day

Tab: hydro 5 mg/acet 325\*mg

Lortab 7.5/500 1 tab q 4-6 hours prn; max 6 tabs/day Tab: hydro 7.5 mg/acet 325\*mg

Lortab 10/500 1 tab q 4-6 hours prn; max 6 tabs/day

Tab: hydro 10 mg/acet 325\*mg

Lortab Elixir 3 tsp q 4-6 hours prn; max 18 tsp/day

*Liq: hydro* 7.5 mg/acet 300 mg per 15 ml (tropical fruit punch) (alcohol)

Maxidone 1 tab q 4-6 hours prn; max 5 tabs/day Tab: hydro 10 mg/acet 325\*mg

Norco 5/325 1 tab q 4-6 hours prn; max 8 tabs/day

Tab: hydro 5 mg/acet 325\*mg

Norco 7.5/325 1 tab q 4-6 hours prn; max 6 tabs/day

Tab: hydro 7.5 mg/acet 325\*mg

Norco 10/325 1 tab q 4-6 hours prn; max 6 tabs/day Tab: hydro 10 mg/acet 325\*mg

Vicodin 1-2 tabs q 4-6 hours prn; max 8 tabs/day Tab: hydro 5 mg/acet 300\*mg

Vicodin ES 1 tab q 4-6 hours prn; max 6 tabs/day

Tab: hydro 7.5 mg/acet 300\*mg

Vicodin HP 1 tab q 4-6 hours prn; max 6 tabs/day

Tab: hvdro 10 mg/acet 300\*mg

Xodol 5/300 1-2 tabs q 4-6 hours prn; max 8 caps/day

Tab: hydro 5 mg/acet 300\*mg

Xodol 7.5/300 1 tab q 4-6 hours prn; max 6 caps/day Tab: hydro 7.5 mg/acet 300\*mg

Xodol 10/300 1 tab q 4-6 hours prn; max 6 caps/day Tab: hydro 10 mg/acet 300\*mg

Zamicet 10/325 1-2 tabs q 4-6 hours prn; max 8 caps/day Lig: hydro 10 mg/acet 325 mg per 15 ml

Zydone 5/400 1-2 tabs q 4-6 hours prn; max 8 caps/day

Tab: hydro 5 mg/acet 400 mg

**Zydone** 7.5/400 1 tab q 4-6 hours prn; max 6 caps/day Tab: hydro 7.5 mg/acet 400 mg

Zydone 10/400 1 tab q 4-6 hours prn; max 6 caps/day

Tab: hydro 10 mg/acet 400 mg

▶ hydrocodone/ibuprofen (C; not for use in 3rd)(II)(G) <12 years: not recommended; ≥12 years:

**Ibudone 5/200** 1 tab q 4-6 hours prn; max 5 tabs/day

Tab: hydro 5 mg/ibup 200 mg

**Ibudone 10/200** 1 tab q 4-6 hours prn; max 5 tabs/day

Tab: hydro 10 mg/ibup 200 mg

Represain 1 tab q 4-6 hours prn; max 5 tabs/day

Tab: hydro 5 mg/ibup 200 mg

Vicoprofen 1 tab q 4-6 hours prn; max 5 tabs/day

Tab: hydro 7.5 mg/ibup 200 mg

hydromorphone (C)(II)(G) <12 years: not recommended; ≥12 years:</p>

Dilaudid initially 2-4 mg q 4-6 hours prn

*Tab*: 2, 4, 8 mg (sulfites)

Dilaudid Oral Liquid 2.5-10 mg q 3-6 hours prn

Lig: 5 mg/5 ml (sulfites)

Dilaudid Rectal Suppository 2.5-10 mg q 6-8 hours prn

Rectal supp: 3 mg

Dilaudid Injection initially 1-2 mg SC or IM q 4-6 hours prn

Amp: 1, 2, 4 mg/ml (1 ml)

Dilaudid-HP Injection initially 1-2 mg SC or IM q 4-6 hours prn

Amp: 10 mg/ml (1 ml)

Exalgo initially 8-64 mg once daily

*Tab*: 8, 12, 16, 32 mg ext-rel (sulfites)

ightharpoonup meperidine (C; D in 2nd, 3rd)(II)(G) <12 years: 0.5-0.8 mg/lb q 3-4 hours prn;  $\geq$ 12 years: 50-150 mg q 3-4 hours prn

Demerol Tab: 50, 100 mg; Syr: 50 mg/5 ml (banana) (alcohol-free)

meperidine/promethazine (C; D in 2nd, 3rd)(II)(G) <12 years: not recommended; ≥12 years:

Mepergan 1-2 tsp q 3-4 hours prn

Syr: mep 25 mg/prom 25 mg per ml

Mepergan Fortis 1-2 tsp q 4-6 hours prn

Tab: mep 50 mg/prom 25 mg

> methadone (C)(II) <12 years: not recommended; ≥12 years: 2.5-10 mg PO, SC, or IM q 3-4 hours prn

Dolophine Tab: 5, 10 mg; Dispersible tab: 40 mg (dissolve in 120 ml orange juice or other citrus drink); Oral conc: 5, 10 mg/5 ml; 10 mg/10 ml; Inj: 10 mg/ml Comment: methadone maintenance is allowed only by approved treatment programs with strict state and federal regulations.

morphine sulfate (C)(II)(G) <18 years: not recommended; ≥18 years: Tabs: usually 15-30 mg q 4 hours prn; Solution: usually 10-20 mg q 4 hours prn

Tab: 15\*, 30\*mg; Oral soln: 10 mg/5 ml, 20 mg/5 ml (100, 500 ml), 100 mg/5 ml (30, 120 ml)

morphine sulfate (immed- and sust-rel) (C)(II) <18 years: not recommended Comment: Dosage dependent upon previous opioid dosage; see mfr pkg insert for conversion guidelines; not for prn use; swallow whole or sprinkle contents of caps on applesauce (do not crush, chew, or dissolve). Generic morphine sulfate is available in the following forms: Tab: 15\*, 30\*mg; Oral soln: 10, 20 mg/5 ml (100 ml); 100 mg/5 ml (30, 120 ml w. oral syringe)
</p>

Arymo ER swallow whole; 1 tab once daily at the same time each day *Tab*: 15, 30, 60 mg ext-rel

Duramorph administer per anesthesia

IV/Intrathecal/Epidural: 0.5, 1 mg/ml

Infumorph administer per anesthesia

Intrathecal/Epidural: 10, 20 mg/ml

Kadian (G) 1 cap every 12-24 hours

Cap: 10, 20, 30, 50, 60, 80, 100, 200 mg sust-rel

**MS Contin (G)** 1 tab every 24 hours *Tab*: 15, 30, 60, 100, 200 mg sust-rel

MSIR 5-30 mg q 4 hours prn

Tab: 15\*, 30\*mg; Cap: 15, 30 mg

MSIR Oral Solution 5-30 mg q 4 hours prn

Oral soln: 10, 20 mg/5 ml (120 ml)

MSIR Oral Solution Concentrate 5-30 mg q 4 hours prn Oral conc: 20 mg/ml (30, 120 ml w. dropper)

Oramorph SR 1 cap every 12-24 hours

*Tab*: 15, 30, 60, 100 mg sust-rel

Roxanol Oral Solution 10-30 mg q 4 hours prn

Oral soln: 20 mg/ml (1, 4, 8 oz)

Roxanol Rescudose

Oral soln: 10 mg/2.5 ml (25 single dose)

*morphine sulfate/naltrexone* (C)(II) <18 years: not recommended; ≥18 years:

Embeda 1 cap q 12-24 hours

Cap: Embeda 20/0.8 morph 20 mg/nal 0.8 mg ext-rel

Embeda 30/1.2 morph 30 mg/nal 1.2 mg ext-rel

Embeda 50/2 morph 50 mg/nal 2 mg ext-rel Embeda 60/2.4 morph 60 mg/nal 2.4 mg ext-rel

Embeda 80/3.2 morph 80 mg/nal 3.2 mg ext-rel

Embeda 80/3.2 morph 80 mg/nal 3.2 mg ext-re Embeda 100/4 morph 100 mg/nal 4 mg ext-rel

Comment: Embeda is not for prn use; for use in opioid-tolerant patients only; swallow whole or sprinkle contents of caps on applesauce (do not crush, chew, or dissolve); do not administer via NG or gastric tube (PEG tube).

oxycodone (B)(II)(G) <18 years: not recommended; ≥18 year: 5-15 mg q 4-6 hours
 prn
</p>

Comment: Concomitant use of CYP3A4 inhibitors may increase opioid effects and CYP3A4 inducers may decrease effects or possibly cause development of an abstinence syndrome (withdrawal symptoms) in patients who are physically oxycodone dependent/addicted.

Oxaydo Tab: 5, 7.5 mg

Comment: Oxaydo is the first and only immediate-release oral oxycodone that discourages intranasal abuse. Oxavdo is formulated with sodium lauryl sulfate, an inactive ingredient that may cause nasal burning and throat irritation when snorted and, thus potentially reducing abuse liability. There is no generic equivalent.

Oxecta Tab: 5, 7.5 mg

Oxycodone Oral Solution (G) Oral soln: 5 mg/5 ml (15, 30 ml)

OxyIR (G) Cap: 5 mg

Roxycodone Tab: 5, 15\*, 30\*mg; Oral soln: 5 mg/ml

Roxycodone Intensol Oral soln: 20 mg/ml

> oxycodone cont-rel (B)(II)(G) dosage dependent upon previous opioid be taking and tolerating dosages; see mfr pkg insert: <11 years: not recommended; 11-16 years: the child's pain must be severe enough to require around-the-clock, longterm treatment not managed well by other treatments; must already tolerate minimum opium dose equal to oxycodone 20 mg/day x 5 consecutive days; >16 years: no previous treatment with oxycodone required

OxyContin dose q 12 hours Tab: 10, 15, 20, 30, 40, 60, 80 mg cont-rel

OxyFast dose q 6 hours

Oral conc: 20 mg/ml (30 ml w. dropper)

Xtampza ER dose q 12 hours

Cap: 10, 15, 20, 30, 40 mg ext-rel

Comment: May open the Xtampza ER capsule and sprinkle in water or on soft

 $\triangleright$  oxycodone/acetaminophen (C)(II)(G) <12 years: not recommended;  $\ge$ 12 years: Comment: Maximum 4 grams acetaminophen per day.

Magnacet 2.5/400 1 tab q 6 hours prn; max 10 tabs/day

Tab: oxy 2.5 mg/acet 325 mg

Magnacet 5/400 1 tab q 6 hours prn; max 10 tabs/day Tab: oxy 5 mg/acet 325 mg

Magnacet 7.5/400 1 tab q 6 hours prn; max 8 tabs/day

Tab: oxy 7.5 mg/acet 325 mg

Magnacet 10/400 1 tab q 6 hours prn; max 6 tabs/day

Tab: oxy 10 mg/acet 325 mg

Percocet 2.5/325 1 tab q 6 hours prn; max 4 gm acet/day Tab: oxy 2.5 mg/acet 325 mg

Percocet 5/325 1 tab q 6 hours prn; max 4 gm acet/day Tab: oxy 5 mg/acet 325\*mg

Percocet 7.5/325 1 tab q 6 hours prn; max 4 gm acet/day Tab: oxy 7.5 mg/acet 325 mg

Percocet 7.5/500 1 tabs q 6 hours prn; max 4 gm acet/day

*Tab: oxy 7.5 mg/acet 325 mg* 

Percocet 10/325 1 tabs q 6 hours prn; max 4 gm acet/day Tab: oxy 10 mg/acet 325 mg

Percocet 10/650 1 tab q 6 hours prn; max 4 gm acet/day

Tab: oxy 10 mg/acet 325 mg

Roxicet 5/325 1 tab/tsp q 6 hours prn

Tab: oxy 5 mg/acet 325 mg; Oral soln: oxy 5 mg/acet 325 mg per 5 ml

Roxicet 5/500 1 caplet q 6 hours prn

Cplt: oxy 5 mg/acet 325 mg

Roxicet Oral Solution 1 tsp q 6 hours prn

Oral soln: oxy 5 mg/acet 325 mg per 5 ml (alcohol 0.4%)

Tylox 1 cap q 6 hours prn

Cap: oxy 5 mg/acet 325 mg

Xartemis XR 2 tabs q 12 hours prn

Tab: oxy 7.5 mg/acet 325 mg

> oxycodone/aspirin (D)(II)(G) <12 years: not recommended; ≥12 years:

Percodan 1 tab q 6 hours prn

Tab: oxy 4.8355 mg/asp 325\*mg

Percodan-Demi <6 years: not recommended: 6-12 years: 1/4 tab q 6 hours prn;

>12-18 years: 1/2 tab q 6 hours prn; >18 years: 1-2 tabs q 6 hours prn

Tab: oxy 2.25 mg/asp 325 mg

oxycodone/ibuprofen (C)(II)(G)

Combunox <12 years: not recommended; ≥12 years: 1 tab q 6 hours prn *Tab: oxy* 5 mg/*ibu* 400\*mg

> oxycodone/naloxone (C)(II) <14 years: not recommended; ≥14 years: 1 tab q 3-4 hours prn</p>

Targiniq

Tab: Targiniq 10/5 oxy 10 mg/nal 5 mg

Targiniq 20/10 oxy 20 mg/nal 10 mg Targiniq 40/20 oxy 40 mg/nal 20 mg

 $\triangleright$  oxymorphone (C)(II)(G) <18 years: not recommended; ≥18 years:

Numorphan 1 supp q 4-6 hours prn

Rectal supp: 5 mg; Vial: 1 mg/ml (1 ml), Amp: 1.5 mg/ml (10 ml);

Comment: Store in refrigerator in original package. 1 mg of Numorphan is approximately equivalent in analgesic activity to 10 mg of *morphine sulfate*.

**Opana** 1-1 tab q 4-6 hours prn

*Tab*: 5, 10 mg

Opana ER 1 tab q 12 hours prn

Tab: 5, 7.5, 10, 15, 20, 30, 40 mg ext-rel crush-resistant

Opana Injection initially 0.5 mg IV or IM; 1 x 1 mg IM or IV q 4-6 hours prn *Amp*: 1 mg/ml (1 ml) (paraben/sodium dithionite-free)

▶ pentazocine/aspirin (D)(IV) <18 years: not recommended; ≥18 years: 2 cplts tid or qid prn

Talwin Compound Cplt: pent 12.5 mg/asp 325 mg

pentazocine/naloxone (C)(IV) <12 years: not recommended; ≥12 years: 1 tab q 3-4 hours prn</p>

Talwin NX Tab: pent 50 mg/nal 0.5\*mg

Pentazocine lactate (C)(IV) <1 year: not recommended; >1 year: 0.5 mg/kg IM 30 mg IM, SC, or IV q 3-4 hours; max 360 mg/day

Talwin Injectable Amp: 30 mg/ml (1, 1.5, 2 ml)

propoxyphene napsylate/acetaminophen (C)(IV)(G)

Comment: Max 4 gm acetaminophen per day.

Balacet 325 <12 year: not recommended; ≥12 year: 0.5 mg/kg IM 1 tab q 4 hours prn; max 6 tabs/day

Tab: prop 100 mg/acet 325 mg

► tramadol (Č)(ĬV)(G)

Comment: Tramadol is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using tramadolcontaining medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Rybix ODT <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl < 30 mL/min or severe hepatic impairment: not recommended; Cirrhosis: max 50 mg q 12 hours

ODT: 50 mg (mint) (phenylalanine)

Ryzolt <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl < 30 mL/min or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

Ultram <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 50-100 mg q 4-6 hours prn; max 400 mg/day; CrCl <30 mL/min: max 100 mg q 12 hours; Cirrhosis: max 50 mg q 12 hours

*Tab*: 50\*mg

Ultram ER <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl < 30 mL/min: or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

► tramadol/acetaminophen (C)(IV)(G) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 2 tabs q 4-6 hours; max 8 tabs/ day; 5 days; CrCl <30 mL/min: max 2 tabs q 12 hours; max 4 tabs/day x 5 days

Ultracet Tab: tram 37.5/acet 325 mg

Comment: Tramadol is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using tramadolcontaining medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

buprenorphine (C)(III) <16 years: not recommended; ≥16 years: change patch every 7 days; do not increase the dose until previous dose has been worn for at least 72 hours; after removal, do not reuse the site for at least 3 weeks; do not expose the patch to heat

Butrans Transdermal System *Transdermal patch*: 5, 10, 20 mcg/hour (4/pck) ► fentanyl transdermal system (C)(II) <16 years or <110 lb: not recommended; ≥16 years or ≥110 lb: apply to clean, dry, non-irritated, intact, skin; hold in place for 30 seconds; start at lowest dose and titrate upward; *Opioid-naïve*: change patch every 3 days (72 hours)

**Duragesic** *Transdermal patch*: 12, 25, 37.5, 50, 62.5, 75, 87.5, 100 mcg/hour (5/pck)

## TRANSMUCOSAL OPIOID

Comment: For chronic severe pain. For management of breakthrough pain in patients with cancer who are already receiving and who are tolerant to opioid therapy. Opioid-tolerant patients are those taking oral  $morphine \ge 60 \text{ mg/day}$ , transdermal  $fentanyl \ge 25 \text{ mcg/hr}$ ,  $oxycodone \ge 30 \text{ mg/day}$ , oral  $hydromorphone \ge 8 \text{ mg/day}$ , or an equianalgesic dose of another opioid, for  $\ge 1$  week

# OPIOID PARTIAL AGONIST-ANTAGONIST

# **▶** buprenorphine (C)

Subutex <16 years: not recommended; ≥16 years: 8 mg in a single dose on day 1; then 16 mg in a single dose on day 2; target dose is 16 mg/day in a single dose; dissolve under tongue; do not chew or swallow whole

SL tab (lemon-lime) or SL film (lime): 2, 8 mg (30/pck)

Comment: The Transmucosal Immediate Release Fentanyl (TIRF) Risk Evaluation and Mitigation Strategy (REMS) program is an FDA-required program designed to ensure informed risk-benefit decisions before initiating treatment, and while patients are treated to ensure appropriate use of TIRF medicines. The purpose of the TIRF REMS Access program is to mitigate the risk of misuse, abuse, addiction, overdose and serious complications due to medication errors with the use of TIRF medicines. You must enroll in the TIRF REMS Access program to prescribe, dispense, or distribute TIRF medicines. To register, call the TIRF REMS Access program at 1-866-822-1483 or register online at https://www.tirfremsaccess.com/TirfUI/rems/home.action

Onsolis Buccal film: 200, 400, 600, 800, 1200 mcg (30 films/pck)

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 side to side; suck (not chew); use 6 units before titrating; titrate dose as needed; max 4 units/day

Actiq *Unit*: 200, 400, 600, 800, 1,200, 1,600 mcg (24 units/pck) Fentora *Unit*: 100, 200, 400, 600, 800 mcg (24 units/pck)

Comment: The Transmucosal Immediate Release Fentanyl (TIRF) Risk Evaluation and Mitigation Strategy (REMS) program is an FDA-required program designed to ensure informed risk-benefit decisions before initiating treatment, and while patients are treated to ensure appropriate use of TIRF medicines. The purpose of the TIRF REMS Access program is to mitigate the risk of misuse, abuse, addiction, overdose and serious complications due to medication errors with the use of TIRF medicines. You must enroll in the TIRF REMS Access program to prescribe, dispense, or distribute TIRF medicines. To register, call the TIRF REMS Access program at 1-866-822-1483 or register online at https://www.tirfremsaccess.com/TirfU//rems/home.action

Abstral SL tab: 100, 200, 300, 400, 600, 800 mcg (32 tabs/pck)

Comment: The Transmucosal Immediate Release Fentanyl (TIRF) Risk Evaluation and Mitigation Strategy (REMS) program is an FDA-required program designed to ensure informed risk-benefit decisions before initiating treatment, and while patients are treated to ensure appropriate use of TIRF medicines. The purpose of the TIRF REMS Access program is to mitigate the risk of misuse, abuse, addiction, overdose and serious complications due to medication errors with the use of TIRF medicines. You must enroll in the TIRF REMS Access program to prescribe, dispense, or distribute TIRF medicines. To register, call the TIRF REMS Access program at 1-866-822-1483 or register online at https://www.tirfremsaccess.com/TirfUI/rems/home.action

► fentanyl sublingual spray (C)(II) <18 years: not recommended; ≥18 years: Subsys 100, 200, 400, 600, 800 mcg/S L spray

Comment: Subsys is not bioequivalent with other *fentanyl* products. Do not convert patients from other *fentanyl* products to Subsys on a mcg-per-mcg basis. There are no conversion directions available for patients on any other *fentanyl* products other than Actiq. (Note: This includes oral, transdermal, or parenteral formulations of *fentanyl*.) The Transmucosal Immediate Release Fentanyl (TIRF) Risk Evaluation and Mitigation Strategy (REMS) program is an FDA-required program designed to ensure informed risk-benefit decisions before initiating treatment, and while patients are treated to ensure appropriate use of TIRF medicines. The purpose of the TIRF REMS Access program is to mitigate the risk of misuse, abuse, addiction, overdose and serious complications due to medication errors with the use of TIRF medicines. You must enroll in the TIRF REMS Access program to prescribe, dispense, or distribute TIRF medicines. To register, call the TIRF REMS Access program at 1-866-822-1483 or register online at https://www.tirfremsaccess.com/TirfUI/rems/home.action

# PARENTERAL OPIOID AGONIST/ANTAGONIST

Palbuphine (B)(G) <18 years: not recommended; ≥18 years: 10 mg/70 kg IM, SC, or IV q 3-6 hours prn</p>

Nubain Amp: 10, 20 mg/ml (1 ml) (sulfite-free, parabens-free)

Pentazocine/naloxone (C)(IV) <12 years: not recommended; ≥12 years: 1-2 tabs q
 3-4 hours prn; max 12 tabs/day
</p>

Talwin-NX Tab: pent 50 mg/nal 0.5\*mg

# INTRANASAL TRANSMUCOSAL NARCOTIC ANALGESICS

each nostril); max 800 mcg; limit to ≤4 doses per day

- butorphanol tartrate nasal spray(C)(IV) <18 years: not recommended; ≥18 years: initially 1 spray (1 mg) in one nostril and may repeat after 60-90 minutes in opposite nostril if needed or 1 spray in each nostril and may repeat q 3-4 hours prn Butorphanol Nasal Spray Nasal spray: 1 mg/actuation (10 mg/ml, 2.5 ml) Stadol Nasal Spray Nasal spray: 1 mg/actuation (10 mg/ml, 2.5 ml)</p>
- Fentanyl nasal spray (C)(II) <18 years: not recommended; ≥18 years: initially 1 spray (100 mcg) in one nostril and may repeat after 2 hours; when adequate analgesia is achieved, use that dose for subsequent breakthrough episodes; *Titration steps*: 100 mcg using 1 x 100 mcg spray; 200 mcg using 2 x 100 mcg spray (1 spray in each nostril); 400 mcg using 1 x 400 mcg spray; 800 mcg using 2 x 400 mcg (1 spray in

Lazanda Nasal Spray Nasal spray: 100, 400 mcg/100 mcl (8 sprays/bottle)
Comment: Lazanda Nasal Spray is available by restricted distribution program.
Call 855-841-4234 or visit https://www.fda.gov/downloads/drugs/drugsafety/postmarketdrugsafetyinformationforpatientsandproviders/ucm261983.pdf to enroll. Lazanda Nasal Spray is indicated for the management of breakthrough pain in cancer patients who are already receiving and who are tolerant to opioid therapy for their underlying persistent cancer pain. Patients considered opioid tolerant are those who are taking at least 60 mg of oral morphine/day, 25 mcg of transdermal fentanyl/hour, 30 mg oral oxycodone/day, 8 mg oral hydromorphone/day, 25 mg oral oxymorphone/day, or an equianalgesic dose of another opioid for a week or longer. Patients must remain on around-the-clock opioids when using Lazanda Nasal Spray. As such, it is contraindicated in the management of acute or post-op pain, including headache/migraine, or dental pain.

Comment: The Transmucosal Immediate Release Fentanyl (TIRF) Risk Evaluation and Mitigation Strategy (REMS) program is an FDA-required program designed to ensure informed risk-benefit decisions before initiating treatment, and while patients are treated to ensure appropriate use of TIRF medicines. The purpose of the TIRF REMS Access program is to mitigate the risk of misuse, abuse, addiction, overdose and serious complications due to medication errors with the use of TIRF medicines. You must enroll in the TIRF REMS Access program to prescribe, dispense, or distribute TIRF medicines. To register, call the TIRF REMS Access program at 1-866-822-1483 or register online at https://www.tirfremsaccess.com/TirfUI/rems/home.action

# INTRATHECAL NARCOTIC ANALGESICS

ziconotide intrathecal (IT) infusion (C) <12 years: not recommended; ≥12 years: initially no more than 2.4 mcg/day (0.1 mcg/hour) and titrate to upward by up to
</p>

2.4 mcg/day (0.1 mcg/day at intervals of no more than 2-3 times per week, up to a recommended maximum of 19.2 mcg/day (0.8 mcg/hr) by Day 21; dose increases in increments of less than 2.4 mcg/day (0.1 mcg/hr) and increases in dose less frequently than 2-3 times per week may be used.

Prialt Vial: 25 mcg/ml (20 ml), 100 mcg/ml (1, 2, 5 ml)

Comment: Patients with a pre-existing history of psychosis should not be treated with *ziconotide*. Contraindications to the use of IT analgesia include conditions such as the presence of infection at the microinfusion injection site, uncontrolled bleeding diathesis, and spinal canal obstruction that impairs circulation of CSF.



# PANCREATIC ENZYME DEFICIENCY

Comment: Seen in chronic pancreatitis, post-pancreatectomy, cystic fibrosis, steatorrhea, post-GI tract bypass surgery, and ductal obstruction from neoplasia. May sprinkle cap; however, do not crush or chew cap or tab. May mix with applesauce or other acidic food; follow with water or juice. Do not let any drug remain in mouth. Take dose just prior to each meal or snack. Base dose on lipase units; adjust per diet and clinical response (i.e., steatorrhea). Pancrelipase products are interchangeable. Contraindicated with pork protein hypersensitivity.

#### PANCRELIPASE PRODUCTS

**▶** pancreatic enzymes (C)

Creon <12 months: 2,000-4,000 units per 120 ml formula  $\underline{\alpha}$ r per breast-feeding (do not mix directly into formula  $\underline{\alpha}$ r breast milk; 12 months-4 years: 1,000 units/kg per meal; max 2,500 units/kg per meal <10,000 units/kg per day; >4 years: 500 units/kg per meal; max 2,500 units/kg per meal  $\underline{\alpha}$ r <10,000 units/kg per day  $\underline{\alpha}$ r <4,000 units/g fat ingested per day

Cap: Creon 3000 lip 3,000 units/pro 9,500 units/amyl 15,000 units del-rel Creon 6000 lip 6,000 units/pro 19,000 units/amyl 30,000 units del-rel Creon 12000 lip 12,000 units/pro 38,000 units/amyl 60,000 units del-rel Creon 24000 lip 24,000 units/pro 76,000 units/amyl 120,000 units del-rel

Creon 36000 lip 36,000 units/pro 114,000 units/amyl 180,000 units del-rel

Cotazym <12 years: not recommended; ≥12 years: 1-3 tabs just prior to each meal or snack

*Tab*: Cotazym *lip* 1,000 units/*pro* 12,500 units/*amyl* 12,500 units del-rel Cotazym-S *lip* 5,000 units/*pro* 20,000 units/*amyl* 20,000 units del-rel Donnazyme <12 years: not recommended; ≥12 years: 1-3 caps just prior to each meal <u>or</u> snack

Cap: Donnazyme lip 5,000 units/pro 20,000 units/amyl 20,000 units del-rel Ku-Zyme 1-2 caps just prior to each meal or snack

Cap: Ku-Zyme: lip 12,000 units/pro 15,000 units/amyl 15,000 units del-rel Kutrase <12 years: not recommended; ≥12 years: 1-2 caps just prior to each meal or snack

Cap: Kutrase: lip 12,000 units/pro 30,000 units/amyl 30,000 units del-rel Pancreaze <12 months: 2,000-4,000 lipase units per 120 ml formula or per breastfeeding; ≥12 months-<4 years: 1,000 lipase units/kg per meal; 4-12

years: 500 lipase units/kg per meal; >12 years: 2,500 lipase units/kg per meal <u>or</u> <10,000 lipase units/kg per day <u>or</u> <4,000 lipase units/gram fat ingested per day <u>Cap</u>: Pancreaze 4200 lip 4,200 units/pro 10,000 units/amyl 17,500 units ec-microtabs

Pancreaze 10500 lip 10,500 units/pro 25,000 units/amyl 43,750 units ec microtabs

Pancreaze 16800 lip 16,800 units/pro 40,000 units/amyl 70,000 units ec-microtabs

Pancreaze 21000 lip 21,000 units/pro 37,000 units/amyl 61,000 units ec-microtabs

Pertyze 12 months-4 years and  $\geq$ 8 kg: initially 1,000 lipase units/kg per meal;  $\geq$ 4 years and  $\geq$ 16 kg: initially 500 lipase units/kg per meal; *Both:* 2,500 lipase units/kg per meal <u>or</u> <10,000 units/kg per day <u>or</u> <4,000 lipase units/g fat ingested per day

Cap: Pertyze 8000 lip 8,000 units/pro 28,750 units amyl 30,250 units del-rel Pertyze 16000 lip 16,000 units/pro 57,500 units/amyl 65,000 units del-rel Ultrase 1-3 tabs just prior to each meal or snack

Cap: Ultrase lip 4,500 units/pro 20,000 units/amyl 25,000 units del-rel Ultrase MT lip 12,000 units/pro 39,000 units/amyl 39,000 units del-rel Ultrase MT 18 lip 18,000 units/pro 58,500 units/amyl 58,500 units del-rel

Ultrase MT 20 lip 20,000 units/pro 65,000 units/amyl 65,000 units

**Viokace** <12 years: not established;  $\geq$ 12 years: initially 500 lip units/kg per meal; max 2,500 lipase units/kg per meal, <u>or</u> <10,000 lipase units/kg per meal, <u>or</u> <4,000 units/g fat ingested per day

Tab: Viokace 8 lip 8,000 units/pro 30,000 units/amyl 30,000 units
Viokace 16 lip 16,000 units/pro 60,000 units amyl 60,000 units
Viokace 10440 lip 10,440 units/pro 39,150 units amyl 39,150 units
Viokace 20880 lip 20,880 units/pro 78,300 units amyl 78,300 units
Comment: Viokace 10440 and Viokace 20880 should be taken with a

Viokace Powder 1/4 tsp (0.7 gm) with meals

daily proton pump inhibitor.

Viokace Powder lip 16,800 units/pro 70,000 units/amyl 70,000 units per 1/4 tsp (8 oz)

Zenpep <12 months: 2,000-4,000 units per 120 ml formula  $\underline{or}$  per breast feeding (do not mix directly into formula  $\underline{or}$  breast milk); 12 months-4 years: 1,000 units/kg per meal; max 2,500 units/kg per meal <10,000 units/kg per day; >4 years: 500 units/kg per meal; max 2,500 units/kg per meal  $\underline{or}$  <10,000 units/kg per day  $\underline{or}$  <4,000 units/g fat ingested per day

Cap: Zenpep 5000 lip 5,000 units/pro 17,000 units/amyl 27,000 units del-rel Zenpep 10000 lip 10,000 units/pro 34,000 units/amyl 55,000 units del-rel

Zenpep 15000 lip 15,000 units/pro 51,000 units/amyl 82,000 units delarel

Zenpep 20000  $\mathit{lip}$  20,000 units/pro 68,000 units/amyl 109,000 units del-rel

**Zymase** <12 years: not recommended; ≥12 years: 1-3 caps just prior to each meal or snack

Cap: Zymase lip 12,000 units/prot 24,000 units/amyl 24,000 units del-rel

# PANIC DISORDER

Comment: If possible when considering a benzodiazepine to treat anxiety, a shortacting benzodiazepines should be used only prn to avert intense anxiety and panic for the least time necessary while a different non-addictive antianxiety regimen (e.g., SSRI, SNRI, TCA, buspirone, beta-blocker) is established and effective treatment goals achieved. Co-administration of SSRIs with TCAs requires extreme caution. Concomitant use of MAOIs and SSRIs is absolutely contraindicated. Avoid other serotonergic drugs. A potentially fatal adverse event is serotonin syndrome, caused by serotonin excess. Milder symptoms require HCP intervention to avert severe symptoms that can be rapidly fatal without urgent/emergent medical care. Symptoms include restlessness, agitation, confusion, hallucinations, tachycardia, hypertension, dilated pupils, muscle twitching, muscle rigidity, loss of muscle coordination, diaphoresis, diarrhea, headache, shivering, piloerection, hyperpyrexia, cardiac arrhythmias, seizures, loss of consciousness, coma, death. Abrupt withdrawal or interruption of treatment with an antidepressant medication is sometimes associated with an antidepressant discontinuation syndrome, which may be mediated by gradually tapering the drug over a period of two weeks or longer, depending on the dose strength and length of treatment. Common symptoms of the serotonin discontinuation syndrome include flu-like symptoms (nausea, vomiting, diarrhea, headaches, sweating), sleep disturbances (insomnia, nightmares, constant sleepiness), mood disturbances (dysphoria, anxiety, agitation), cognitive disturbances (mental confusion, hyperarousal), sensory and movement disturbances (imbalance, tremors, vertigo, dizziness, electric shock-like sensations in the brain, often described by sufferers as "brain zaps").

# SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

citalopram (C)(G) <12 years: not recommended; ≥12 years: initially 20 mg once daily; may increase after one week to 40 mg once daily; max 40 mg
 Celexa Tab: 10, 20, 40 mg; Oral soln: 10 mg/5 ml (120 ml) (pepper mint)(sug</p>

ar-free, alcohol-free, parabens)

escitalopram (C)(G) <12 years: not recommended; 12-17 years: initially 10 mg daily; may increase to 20 mg daily after 3 weeks; >17 years: initially 10 mg daily; may increase to 20 mg daily after 1 week; Hepatic impairment: 10 mg once daily Lexapro Tab: 5, 10\*, 20\*mg

Lexapro Oral Solution Oral soln: 1 mg/ml (240 ml) (peppermint) (parabens)

▶ fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10 mg/day; may increase after 1 week to 20 mg/day; range 20-60 mg/day; range for lower weight children, 20-30 mg/day; >17 years: initially 20 mg daily; may increase after 1 week; doses >20 mg/day should be divided into AM and noon doses; max 80 mg/day

Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint)

Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxetine therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after
the last 20 mg fluoxetine dose

Cap: 90 mg ent-coat del-rel pellets

| levomilnacipran (C) <12 years: not recommended; ≥12 years: swallow whole; initially 20 mg once daily for 2 days; then increase to 40 mg once daily; may increase dose in 40 mg increments at intervals of ≥2 days; max 120 mg once daily; CrCl 30-59 mL/min: max 80 mg once daily; CrCl 15-29 mL/min: max 40 mg once daily Fetzima Cap: 20, 40, 80, 120 mg ext-rel</p>

paroxetine maleate (D)(G)

Paxil <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day Tab: 10\*, 20\*, 30, 40 mg

Paxil CR <12 years: not recommended; ≥12 years: initially 25 mg daily in AM; may increase by 12.5 mg at weekly intervals as needed; max 62.5 mg/day

Tab: 12.5, 25, 37.5 mg cont-rel ent-coat

Paxil Suspension <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day Oral susp: 10 mg/5 ml (250 ml) (orange)

Sertraline (C)(G) <6 years: not recommended; 6-<12 years: initially 25 mg daily; max 200 mg/day; 12-17 years: initially 50 mg daily; max 200 mg/day ≥17 years: initially 50 mg daily; increase at 1 week intervals if needed; max 200 mg daily; dilute oral concentrate immediately prior to administration in 4 oz water, ginger ale, lemon/lime soda, lemonade, or orange juice</p>

**Zoloft** *Tab*: 25\*, 50\*, 100\*mg; *Oral conc*: 20 mg per ml (60 ml) (alcohol 12%)

# SEROTONIN-NOREPINEPHRINE REUPTAKE INHIBITORS (SNRIS)

desvenlafaxine (C)(G) <18 years: not recommended; ≥18 years: swallow whole; initially 50 mg once daily; max 120 mg/day
</p>

Pristiq Tab: 50, 100 mg ext-rel

duloxetine (C)(G) <12 years: not recommended; ≥12 years: swallow whole; initially 30 mg once daily x 1 week; then, increase to 60 mg once daily; max 120 mg/day Cymbalta Cap: 20, 30, 40, 60 mg del-rel</p>

▶ venlafaxine (C)(G)

Effexor initially <12 years: not recommended; ≥12 years: 75 mg/day in 2-3 divided doses; may increase at 4 day intervals in 75 mg increments to 150 mg/day; max 225 mg/day

Tab: 37.5, 75, 150, 225 mg

Effexor XR <18 years: not recommended; ≥18 years: initially 75 mg q AM; may start at 37.5 mg daily x 4-7 days, then increase by increments of up to 75 mg/day at intervals of at least 4 days; usual max 375 mg/day

Tab/Cap: 37.5, 75, 150 mg ext-rel

vortioxetine (C) <18 years: not established; ≥18 years: initially 10 mg once daily; max 30 mg/day</p>

Brintellix Tab: 5, 10, 15, 20 mg

# TRICYCLIC ANTIDEPRESSANTS (TCAs)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab: 10, 25, 50, 75, 100, 150 mg
- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)
  </p>

Tab: 25, 50, 100, 150 mg

Clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

**Anafranil** *Cap*: 25, 50, 75 mg

desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day

day
</p>

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

ightharpoonup imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg Cap: 75, 100, 125, 150 mg

» nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tidqid; max 150 mg/day

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day</p>
Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
 Surmontil Cap: 25, 50, 100 mg
</p>

## 1ST GENERATION ANTIHISTAMINE

► hydroxyzine (C)(G) <6 years: 50 mg/day divided qid; 6-12 years: 50-100 mg/day divided qid; >12 years: 50-100 mg qid; max 600 mg/day

Atarax Tab: 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)

Vistaril Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

Comment: *hydroxyzine* is contraindicated in early pregnancy and in patients with a prolonged QT interval. It is not known whether this drug is excreted in human milk; therefore, *hydroxyzine* should not be given to nursing mothers.

# AZAPIRONE

buspirone (B) <6 years: not recommended; ≥6 years: initially 7.5 mg bid; may increase by 5 mg/day q 2-3 days; max 60 mg/day</p>

BuSpar Tab: 5, 10, 15\*, 30\* mg

#### BENZODIAZEPINES

#### Short Acting

≥ alprazolam (D)(IV)(G)

Niravam <18 years: not recommended; ≥18 years: initially 0.25-0.5 mg tid; may titrate every 3-4 days; max 4 mg/day

Tab: 0.25\*, 0.5\*, 1\*, 2\*mg orally-disint

Xanax <18 years: not recommended; ≥18 years: initially 0.25-0.5 mg tid; may titrate every 3-4 days; max 4 mg/day

Tab: 0.25\*, 0.5\*, 1\*, 2\*mg

Xanax XR <18 years: not recommended; ≥18 years: initially 0.5-1 mg once daily, preferably in the AM; increase at intervals of at least 3-4 days by up to 1 mg/day; taper no faster than 0.5 mg every 3 days; max 10 mg/day; when switching from immed-rel to ext-rel *alprazolam*, once daily dose of ext-rel equals total daily dose of immed-rel

*Tab*: 0.5, 1, 2, 3 mg ext-rel

➤ oxazepam (C)(IV)(G) <12 years: not recommended; ≥12 years: 10-15 mg tid-qid for moderate symptoms; 15-30 mg tid-qid for severe symptoms

Tab: 15 mg; Cap: 10, 15, 30 mg

# **Intermediate Acting**

lorazepam (D)(IV)(G) <18 years: not recommended; ≥18 years: 1-10 mg/day in 2-3 divided doses</p>

Ativan Tab: 0.5, 1\*, 2\*mg

**Lorazepam Intensol** *Oral conc*: 2 mg/ml (30 ml w. graduated dropper)

# Long Acting

► chlordiazepoxide (D)(IV)(G)

**Librium** <6 years: not recommended; ≥6 years: 5 mg bid-qid; may increase to 10 mg bid-tid; *Moderate symptoms*: 5-10 mg tid-qid; *Severe symptoms*: 20-25 mg tid-qid

Cap: 5, 10, 25 mg

**Librium Injectable** <18 years: not recommended;  $\ge$ 18 years: 50-100 mg IM <u>or</u> IV; then 25-50 mg IM tid-qid prn; max 300 mg/day

*Inj*: 100 mg

chlordiazepoxide/clidinium (D)(IV) <18 years: not recommended; ≥18 years: 1-2 caps tid-qid: max 8 caps/day</p>

Librax Cap: chlor 5 mg/clid 2.5 mg

> clonazepam (D)(IV)(G) <18 years: not recommended; ≥18 years: initially 0.25 mg bid; increase to 1 mg/day after 3 days

**Klonopin** *Tab*: 0.5\*, 1, 2 mg

Klonopin Wafers dissolve in mouth with or without water

Wafer: 0.125, 0.25, 0.5, 1, 2 mg orally-disint

clorazepate (D)(IV)(G) < 9 years: not recommended; ≥ 9 years: 30 mg/day in divided doses; max 60 mg/day
</p>

Tranxene Tab: 3.75, 7.5, 15 mg

Tranxene SD do not use for initial therapy

Tab: 22.5 mg ext-rel

Tranxene SD Half Strength do not use for initial therapy

Tab: 11.25 mg ext-rel

Tranxene T-Tab Tab: 3.75\*, 7.5\*, 15\*mg

diazepam (D)(IV)(G) <12 years: not recommended; ≥12 years: 2-10 mg bid to qid
</p>

Diastat Rectal gel delivery system: 2.5 mg

Diastat AcuDial Rectal gel delivery system: 10, 20 mg

Valium Tab: 2\*, 5\*, 10\*mg

Valium Injectable Vial: 5 mg/ml (10 ml); Amp: 5 mg/ml (2 ml); Prefilled syringe: 5 mg/ml (5 ml)

Valium Intensol Oral Solution Conc oral soln: 5 mg/ml (30 ml w. dropper) (alcohol 19%)

Valium Oral Solution Oral soln: 5 mg/5 ml (500 ml) (wintergreen spice)

## **PHENOTHIAZINES**

prochlorperazine (C)(G) Compazine <12 years: not recommended; ≥12 years: 5 mg tid-qid</p>

*Tab*: 5 mg; *Syr*: 5 mg/5 ml (4 oz) (fruit); *Rectal supp*: 2.5, 5, 25 mg **Compazine Spansule** <12 years: not recommended; ≥12 years: 15 mg q AM or 10 mg q 12 hours

Spansule: 10, 15 mg sust-rel

trifluoperazine (C)(G) <12 years: not recommended; ≥12 years: 1-2 mg bid; max 6
 mg/day; max 12 weeks
</p>

Stelazine Tab: 1, 2, 5, 10 mg

# PARONYCHIA (PERIUNGUAL ABSCESS)

cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: mg bid x 10 days
</p>

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

clindamycin (B)(G) <12 years: 8-16 mg/kg/day in 3-4 divided doses x 10 days; see page 559 for dose by weight table; ≥12 years: 150-300 mg q 6 hours x 10 days</p>

Cleocin Cap: 75 (tartrazine), 150 (tartrazine), 300 mg

Cleocin Pediatric Granules Oral susp: 75 mg/5 ml (100 ml) (cherry)

dicloxacillin (B)(G) <12 years: 12.5-25 mg/kg/day in 4 divided doses x 10 days; see page 560 for dose by weight table; ≥12 years: 500 mg q 6 hours x 10 days
</p>

**Dynapen** Cap: 125, 250, 500 mg; Oral susp: 62.5 mg/5 ml (80, 100, 200 ml)

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 doses x 10 days; ≥45 kg: 500 mg q 6 hours x 10 days</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg



# PEDICULOSIS: PEDICULOSIS HUMANUS CAPITIS (HEAD LICE)/PHTHIRUS (PUBIC LICE)

- ivermectin (C) <6 months, <33 lbs: not recommended; ≥6 months, ≥33 lbs: same thoroughly wet hair; leave on for 10 minutes; then rinse off with water; do not retreat Sklice Lotn: 0.5% (4 oz, 117 g, laminate tube)
- lindane (C)(G) <2 years: not recommended; ≥2 years: apply, leave on for 4 minutes, then thoroughly wash off

Kwell Shampoo Shampoo: 1% (60 ml)

- malathion (B)(G) <12 years: not recommended; ≥12 years: thoroughly wet hair; allow to dry naturally; shampoo and rinse after 8-12 hours; use a fine tooth comb to remove lice and nits; if lice persist after 7-9 days, may repeat treatment Ovide (OTC) Lotn: 59% (2 oz)</p>
- permethrin (B)(G) <2 months: not recommended; ≥2 months: apply to washed and towel-dried hair; allow to remain on for 10 minutes, then rinse off; repeat after 7 days if needed</p>

Nix (OTC) Crm rinse: 1% (2 oz w. comb)

pyrethrins with piperonyl butoxide (C)(G) <2 months: not recommended; ≥2 months: apply and leave on for 10 minutes, then wash off
</p>

**A-200** Shampoo: pyr 0.33%/pip but 3%

Rid Mousse Shampoo: pyr 0.33%/pip but 4%

Rid Shampoo Shampoo: pyr 0.33%/pip but 3%

Comment: To remove nits, soak hair in equal parts white vinegar and water for 15-20 minutes.



# **PELVIC INFLAMMATORY DISEASE (PID)**

Comment: The following treatment regimens are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms. Treat all sexual partners. Because of the high risk for maternal morbidity and preterm delivery, pregnant females who have suspected PID should be hospitalized and treated with parenteral antibiotics. HIV-infected females with PID respond equally well to standard parenteral and antibiotic regimens as HIV-negative females.

#### OUTPATIENT REGIMENS

# Regimen 1

- ceftriaxone 250 mg IM in a single dose plus
- doxycycline 100 mg bid x 14 days with or without
- metronidazole 500 mg PO bid x 14 days

# Regimen 2

- cefoxitin 2 gm IM in a single dose plus
- probenecid 1 gm PO in a single dose administered concurrently with doxycycline 100 mg bid x 14 days with or without
- metronidazole 500 mg PO bid x 14 days

# Regimen 3

- ▶ Other parenteral third-generation cephalosporin (e.g., ceftizoxime or cefotaxime) in a single dose) plus
- ► doxycycline 100 mg bid x 14 days with or without
- metronidazole 500 mg PO bid x 14 days

# DRUG BRANDS AND DOSE FORMS

cefoxitin (B)(G)

Mefoxin Vial: 1, 2 g

ceftriaxone (B)(G)

Rocephin Vials 250, 500 mg: 1, 2 g

*→* doxycycline (D)(G)

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Dorvx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

metronidazole (not for use in 1st; B in 2nd, 3rd)

Flagyl Tab: 250\*, 500\*mg

Flagyl 375 Cap: 375 mg Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

▶ probenecid (B)(G)

Benemid Tab: 500\*mg; Cap: 500 mg



# PEPTIC ULCER DISEASE (PUD)

Helicobacter pylori Eradication Regimens see page 173

# H<sub>2</sub> ANTAGONISTS

 $\triangleright$  *cimetidine* (B)(G) <16 years: not recommended; ≥16 years:

Tagamet 800 mg bid or 400 mg qid; max 2.4 gm/day

*Tab*: 300, 400\*, 800\* mg

Tagamet HB (OTC) Prophylaxis: 1 tab ac; Treatment: 1 tab bid

*Tab*: 200 mg

Tagamet HB Oral Suspension (OTC) Prophylaxis: 1 tsp ac; Treatment: 1 tsp bid Oral susp: 200 mg/20 ml (12 oz)

Tagamet Liquid Liq: 300 mg/5 ml (mint-peach) (alcohol 2.8%)

Famotidine (B)(G) <12 years: 0.5 mg/kg/day q HS or in 2 divided doses; max 40 mg/day; ≥12 years: 20 mg bid or 40 mg q HS; max 6 weeks

Pepcid Tab: 20, 40 mg; Oral susp: 40 mg/5 ml (50 ml)

Pepcid AC (OTC) Tab/Rapid dissolving tab: 10 mg

Pepcid Complete (OTC) Tab: fam 10 mg/CaCO<sub>2</sub> 800 mg/Mg hydroxide 165 mg Pepcid RPD Tab: 20, 40 mg rapid-dissolving

mizatidine (B)(G) <12 years: not recommended; ≥12 years: 150 mg bid; max 12
 weeks
</p>

**Axid** Cap: 150, 300 mg

Axid AR (OTC) 1 tab ac; max 150 mg/day

Tab: 75 mg

▶ ranitidine (B)(G) <1 month: not recommended; 1 month-16 years: 2-4 mg/kg/day in 2 divided doses; max 300 mg/day; Duodenal/Gastric Ulcer: 2-4 mg/kg/day divided bid; max 300 mg/day; Erosive Esophagitis: 5-10 mg/kg/day divided bid; max 300 mg/day; >16 years:

Zantac 150 mg bid or 300 mg q HS

Tab: 150, 300 mg

Zantac 75 (OTC) 1 tab ac

*Tab*: 75 mg

Zantac EFFERdose dissolve 25 mg tab in 5 ml water; dissolve 150 mg tab in 6-8 oz water

Efferdose: 25, 150 mg effervescent (phenylalanine)

Zantac Syrup Syr: 15 mg/ml (peppermint) (alcohol 7.5%)

Frantidine bismuth citrate (C) <12 years: not recommended; ≥12 years: 400 mg bid Tritec Tab: 400 mg

# PROTON PUMP INHIBITORS (PPIs)

Comment: If hepatic impairment, or if patient is Asian, consider reducing the PPI dosage. Research has demonstrated associations between PPI use and fractures of the hip, wrist, and spine, hypomagnesemia, kidney injuries and chronic kidney disease, possible cardiovascular drug interactions, and infections (e.g., *Clostridium difficile* and pneumonia). Reducing the acidity of the stomach allows bacteria to thrive and spread to other organs like the lungs and intestines. This risk is increased with high dose and chronic use and greatest in the elderly. The most recent class-wide FDA warning cites reports of cutaneous and systemic lupus erythematosis (CLS/SLE) associated with PPIs in patients with both new onset and exacerbation of existing autoimmune disease. PPI treatment should be discontinued and the patient should be referred to a specialist. (http://www.fda.gov/DrugS/DrugSafety/InformationbyDrugClass/ucm213259.htm)

dexlansoprazole (B)(G) <18 years: not recommended; ≥18 years: 30-60 mg daily for up to 4 weeks
</p>

**Dexilant** *Cap*: 30, 60 mg ent-coat del-rel granules; may open and sprinkle on applesauce; do not crush or chew granules

Dexilant SoluTab Tab: 30 mg del-rel orally-disint

esomeprazole (B)(OTC)(G) <1 year: not recommended; 1-11 years: <20 kg: 10 mg; ≥20 kg: 10-20 mg once daily; ≥12 years: 20-40 mg daily; max 8 weeks; take 1 hour before food; swallow whole or mix granules with food or juice and take immediately; do not crush or chew granules

Nexium Cap: 20, 40 mg ent-coat del-rel pellets

Nexium for Oral Suspension *Oral susp*: 10, 20, 40 mg ent-coat del-rel granules/pkt; mix in 2 tbsp water and drink immediately; 30 pkt/carton

lansoprazole (B)(OTC)(G) year: not recommended; 1-11, <30 kg: 15 mg once daily;

≥12 years: 15-30 mg daily for up to 8 weeks; may repeat course; take before eating Prevacid Cap: 15, 30 mg ent-coat del-rel granules; swallow whole or mix gran-

ules with food or juice and take immediately; do not crush or chew granules; follow with water

Prevacid for Oral Suspension Oral susp: 15, 30 mg ent-coat del-rel granules/pkt; mix in 2 tbsp water and drink immediately; 30 pkt/carton (strawberry)

Prevacid SoluTab *ODT*: 15, 30 mg (strawberry) (phenylalanine)

Prevacid 24HR 15 mg ent-coat del-rel granules; swallow whole or mix granules with food or juice and take immediately; do not crush or chew granules; follow with water

meprazole (C)(OTC)(G) <1 year: not recommended; 5-<10 kg: 5 mg daily; 10-<20 kg: 10 mg daily; ≥20 kg: 20-40 mg daily; take before eating; swallow whole or mix granules with applesauce and take immediately; do not crush or chew; follow with water

Prilosec Cap: 10, 20, 40 mg del-rel granules

Prilosec OTC Tab: 20 mg del-rel (regular, wild berry)

**pantoprazole** (B) <12 years: not recommended; ≥12 years: 40 mg bid

Protonix (G) Tab: 40 mg ent-coat del-rel

Protonix for Oral Suspension Oral susp: 40 mg ent-coat del-rel granules/ pkt; mix in 1 tsp apple juice for 5 seconds or sprinkle on 1 tsp applesauce, and swallow immediately; do not mix in water or any other liquid or food; take approximately 30 minutes prior to a meal; 30 pkt/carton

rabeprazole (B)(OTC)(G) 12 years: not recommended; ≥12 years: initially 20 mg daily; then titrate; may take 100 mg daily in divided doses or 60 mg bid; max 8

AcipHex Tab: 20 mg ent-coat del-rel AcipHex Sprinkle Cap: 5, 10 mg del-rel

Antacids see GERD page 144

#### OTHER

> glycopyrrolate (B)(G) <12 years: not recommended; ≥12 years: initially 1-2 mg bidtid; Maintenance: 1 mg bid; max 8 mg/day

Robinul Tab: 1 mg (dye-free)

Robinul Forte *Tab*: 2 mg (dye-free)

Comment: *glycopyrrolate* is an anticholinergic adjunct to PUD treatment.

mepenzolate (B)(G) 25-50 mg divided qid, with meals and at HS Cantil Tab: 25 mg

sucralfate (B)(G) Active ulcer: 1 gm qid; Maintenance: 1 gm bid Carafate Tab: 1\*g; Oral susp: 1 gm/10 ml (14 oz)

#### **PROPHYLAXIS**

 $\rightarrow$  misoprostol (X) <12 years: not recommended;  $\geq$ 12 years: 200 mg gid with food for prevention of NSAID-induced gastric ulcers

Cytotec *Tab*: 100, 200 mg

Comment: *misoprostol* is a prostaglandin E1 analog indicated for the prevention of NSAID-induced gastric ulcers. Females of childbearing potential should have a negative serum pregnancy test within 2 weeks before starting and first dose on

the 2nd <u>or</u> 3rd day of the next menstrual period. A contraceptive method should be maintained during therapy. Risks to pregnant females include: spontaneous abortion, premature birth, fetal anomalies, and uterine rupture.



# PERIPHERAL NEURITIS, DIABETIC NEUROPATHIC PAIN, PERIPHERAL NEUROPATHIC PAIN

- Acetaminophen for IV Infusion see Pain page 296
- acetaminophen (B)(G) see Fever page 137
- aspirin (D)(G) see Fever page 137

Comment: aspirin-containing medications are contraindicated with history of allergic-type reaction to aspirin, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

#### a<sub>2</sub>-DELTA LIGAND

pregabalin (GABA analog) (C)(V) <18 years: not recommended; ≥18 years: initially
 150 mg daily divided bid-tid; may titrate within one week; max 600 mg divided bid tid; discontinue over one week
</p>

Lyrica Cap: 25, 50, 75, 100, 150, 200, 225, 300 mg; Oral soln: 20 mg/ml

# SEROTONIN AND NOREPINEPHRINE REUPTAKE INHIBITOR (SNRI)

duloxetine (C) <12 years: not recommended; ≥12 years: swallow whole; 30-60 mg
 once daily; may increase by 30 mg at 1 week intervals; usual target 60 mg daily; max
 120 mg/day
</p>

Cymbalta Cap: 20, 30, 60 mg ent-coat pellets

Comment: Cymbalta is indicated for chronic pain syndromes (e.g., arthritis, fibromyalgia, low back pain).

#### TOPICAL/TRANSDERMAL NSAIDS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years; apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0, 075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

**Dolorac** *Crm*: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

capsaicin 8% patch (B) <18 years: not recommended; ≥18 years: apply up to 4 patches for one 60-minute application to clean dry skin; may prep area with topical anesthetic; wear non-latex gloves; patches may be cut to size/shape; treatment may be repeated every 3 months; remove with cleansing gel after treatment</p>

Qutenza Patch: 8% 1640 mcg/cm (179 mg) (1 or 2 patches, each w. 1-50 gm tube cleansing gel/carton)

diclofenac epolamine transdermal patch (C) <12 years: not recommended; ≥12
 years: apply one patch to affected area bid; remove during bathing; avoid non-intact
 skin
</p>

Flector Patch Patch: 180 mg/patch (30/carton)

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)
Capsin (OTC) Lotn: 0.025, 0, 075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

**Zostrix HP (OTC)** *Emol crm*: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

Example 2 capsaicin 8% patch (B) <18 years: not recommended; ≥18 years: apply up to 4 patches for one 60-minute application to clean dry skin; may prep area with topical anesthetic; wear non-latex gloves; patches may be cut to size/shape; treatment may be repeated every 3 months; remove with cleansing gel after treatment

Qutenza Patch: 8% 1640 mcg/cm (179 mg) (1 or 2 patches w. 1-50 gm tube cleansing gel/carton)

bidocaine 5% patch (B)(G) <18 years: not recommended; ≥18 years: apply up to 3 patches at one time for up to 12 hours/24-hour period (12 hours on/12 hours off); patches may be cut into smaller sizes before removal of the release liner; do not reuse</p>

Lidoderm Patch: 5% (10 x 14 cm, 30/carton)

#### ORAL ANALGESICS

► tramadol (C)(IV)(G)

Comment: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Rybix ODT <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day;  $CrCl < 30 \ mL/min \ or severe hepatic impairment:$  not recommended; Cirrhosis: max 50 mg q 12 hours

ODT: 50 mg (mint) (phenylalanine)

Ryzolt <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

Ultram <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoid-ectomy pain;  $\geq$ 18 years: 50-100 mg q 4-6 hours prn; max 400 mg/day; CrCl < 30 mL/min: max 100 mg q 12 hours; Cirrhosis: max 50 mg q 12 hours

Ultram ER <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min: or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

tramadol/acetaminophen (C)(IV)(G) < 12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 2 tabs q 4-6 hours; max 8 tabs/day; 5 days; CrCl < 30 mL/min: max 2 tabs q 12 hours; max 4 tabs/day x 5 days
</p>

Ultracet Tab: tram 37.5/acet 325 mg

**Comment:** *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

# MU-OPIOID AGONIST/NOREPINEPHRINE REUPTAKE INHIBITOR

**▶** *tapentadol* (C) <18 years: not recommended; ≥18 years:

Nucynta 50-100 mg q 4-6 hours prn; max 700 mg/day on the first day; 600 mg/day on subsequent days

Tab: 50, 75, 100 mg

Nucynta ER *Opioid-naïve:* initially 50 mg q 12 hours, then titrate to optimal dose within therapeutic range; usual therapeutic range 100-250 mg q 12 hours; doses >500 mg not recommended; *Converting from Nucynta:* divide total Nucynta daily dose into 2 Nucynta ER doses and administer q 12 hours; converting from *oxycodone CR* and other opioids, see mfr recommendations *Tab:* 50. 100. 150. 200. 250 mg ext-rel

Other Oral Analgesics see Pain page 298

# PERTUSSIS (WHOOPING COUGH)

Prophylaxis see Childhood Immunizations page 473

## POSTEXPOSURE PROPHYLAXIS AND TREATMENT

Comment: Antibiotics do not alter the course of illness, but they do prevent transmission. Infected persons should be isolated until after the fifth day of antibiotic treatment

⇒ azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose

Zithromax *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>) Comment: azithromycin is the drug of choice for infants <1 month-of-age.

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/ kg divided bid x 10 days; see page 558 for dose by weight table; >12 years: 250 mg bid or 500 mg ext-rel daily x 10 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

erythromycin base (B)(G) <12 years: 40 mg/kg/day in divided doses x 14 days; ≥12 years: 1 gm/day divided qid x 14 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry) E.E.S. 400 Tablets *Tab*: 400 mg

► trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; 2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

#### TREATMENT

Same as Postexposure Prophylaxis

### PHARYNGITIS: GONOCOCCAL

**Comment**: Treat all sexual contacts. Empiric therapy requires concomitant treatment for *Chlamydia*. Post-treatment culture recommended with PMHx history rheumatic fever.

### PRIMARY THERAPY

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

Zithromax *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>) Comment: Per the CDC 2015 STD Treatment Guidelines, *azithromycin* should be used with ceftriaxone 250 mg.

**>** *ceftriaxone* (B)(G) <45 kg: 125 mg IM x 1 dose; ≥45 kg: 250 mg IM x 1 dose Rocephin *Vial*: 250, 500 mg; 1, 2 g

### PHARYNGITIS: STREPTOCOCCAL

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

⇒ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

**Zithromax** *Tab:* 250, 500, 600 mg; *Oral susp:* 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt:* 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg in 2 or 3 divided doses x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 375 mg bid x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

Tab: 375, 500 mg ext-rel

- cefadroxil <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in a single or 2 divided doses x 10 days Duricef Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml (75, 100 ml) (orange-pineapple)</p>
- cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; ≥12 years: 300 mg bid x 10 days or 600 mg daily x 10 days</p>

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

cefditoren pivoxil (B) <12 years: not recommended; ≥12 years: 200 mg bid x 10 days
 Spectracef Tab: 200 mg
</p>

 $\textbf{Comment: Spectracef} \ is \ contraindicated \ with \ milk \ protein \ allergy \ \underline{or} \ carnitine \ deficiency.$ 

cefixime (B)(G) <6 months: not recommended; 6 months-12 years, <50 kg: 8 mg/kg/day in 1-2 divided doses x 10 days; >12 years, ≥50 kg: same as adult; see page 552 for dose by weight table; >12 years: 400 mg daily x 10 days

Suprax Tab: 400 mg; Cap: 400 mg; Oral susp: 100, 200, 500 mg/5 ml (50, 75, 100 ml) (strawberry)

- cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/kg/day in 2 divided doses x 5-7 days; see page 553 for dose by weight table; >12 yours: 100 mg bid x 5-7 days
- cefprozil (B) ≤6 months: not recommended; 6 months-12 years: 7.5 mg/kg divided bid x 10 days; see page 554 for dose by weight table; >12 years: 500 mg daily x 10 days

**Cefzil** *Tab*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)

ceftibuten (B) <12 years: 9 mg/kg daily x 10 days; max 400 mg/day; see page 555 for dose by weight table; ≥12 years: 400 mg daily x 10 days</p>

Cedax Cap: 400 mg; Oral susp: 90 mg/5 ml (30, 60, 90, 120 ml); 180 mg/5 ml (30, 60, 120 ml) (cherry)

 $\triangleright$  cefuroxime axetil (B)(G) <3 months: not recommended; ≥3 months-12 years: 20 mg/kg/day divided bid x 10 days; see page 556 for dose by weight table; ≥12 years: 250-500 mg bid x 10 days

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

➤ cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 500 mg bid x 10 days

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

Clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/
 kg divided bid x 10 days; see page 558 for dose by weight table; >12 years: 250 mg bid
 or 500 mg ext-rel daily x 10 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

- erythromycin base (B)(G) <45 kg: 30-50 mg divided bid-qid x 10 days; ≥45 kg: 500 mg qid x 10 days
  </p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

- erythromycin estolate (B)(G) <12 years: 20-50 mg/kg divided q 6 hours x 10 days; see page 562 for dose by weight table; ≥12 years: 250-500 mg qid x 10 days Ilosone Pulvule: 250 mg; Tab: 500 mg; Liq: 125, 250 mg/5 ml (100 ml)</p>
- ► erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

**E.E.S. Granules** *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 5 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 5 days</p>

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

- penicillin g (benzathine) (B)(G) <60 lb: 300,000-600,000 units IM x 1 dose; ≥60 lb, ≥12-18 years: 900,000 units x 1 dose; ≥18 years: 1.2 million units IM x 1 dose
   Ricillin I. A Cartridge needle unit 600,000 units (1 ml): 1.2 million units (2 ml)
  </p>
- Bicillin L-A Cartridge-needle unit: 600,000 units (1 ml); 1.2 million units (2 ml)

  → penicillin g (benzathine and procaine) (B)(G) < 30 lb: 600,000 units IM x 1 dose;
- y pentiting (benziumne and procume) (b)(G) <30 io: 600,000 units IM x 1 dose; 30-<60 lb: 900,000-1.2 million units IM x 1 dose; ≥60 mg, >12 years: 2.4 million units IM x 1 dose

Bicillin C-R Cartridge-needle unit: 600,000 units (1 ml); 1.2 million units; (2 ml); 2.4 million units (4 ml)

Penicillin v potassium (B)(G) <12 years: 25-75 mg/kg day divided q 6-8 hours x 10 days; see page 572 for dose by weight table; ≥12 years: 500 mg bid or 250 mg qid x 10 days</p>

Pen-Vk *Tab*: 250, 500 mg; *Oral soln*: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)

**Veetids** *Tab*: 250, 500 mg; *Oral soln*: 125, 250 mg/5 ml (100, 200 ml)

# PINWORM (ENTEROBIUS VERMICULARIS)

#### ANTHELMINTICS

Comment: Oral bioavailability of anthelmintics is enhanced when administered with a fatty meal (estimated fat content 40 g). Treatment of all family members is

recommended. Some clinicians recommend all household contacts of infected patients receive treatment, especially when multiple or repeated symptomatic infections occur, since such contacts commonly also are infected; retreatment after 14 to 21 days may be needed.

- albendazole (C) take with a meal; chew or crush and mix with food; may repeat in 2-3 weeks; <20 kg: 200 mg as a single dose; ≥20 kg: 400 mg as a single dose Albenza Tab: 200 mg
- mebendazole (C) take with a meal; chew or crush and mix with food; may repeat in
   3 weeks if needed <2 years: not recommended; ≥2 years: 100 mg as a single dose;
   Emverm Chew tab: 100 mg
  </p>

Vermox (G) Chew tab: 100 mg

▶ pyrantel pamoate (C) take with a meal; may open capsule and sprinkle or mix with food; may repeat in 2-3 weeks if needed; 11 mg/kg x 1 dose; max 1 gm/dose; 25-37 lb: 1/2 tsp x 1 dose; 38-62 lb: 1 tsp x 1 dose; 63-87 lb: 1 tsp x 1 dose; 88-112 lb: 2 tsp x 1 dose; 113-137 lb: 2 tsp x 1 dose; 138-162 lb: 3 tsp x 1 dose; 163-187 lb: 3 tsp x 1 dose; >187 lb: 4 tsp x 1 dose

Antiminth (OTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (60 ml)

Pin-X (ÔTC); Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (30 ml)

thiabendazole (C) take with a meal; chew or crush and mix with food; <30 lb: consult mfr pkg insert; ≥30 lb: 25 mg/kg x 1 dose; 30-50 lb: 250 mg x 1 dose; >50 lb: 10 mg/lb x 1 dose; take with a meal; max 1.5 gm/dose

Mintezol Chew tab: 500\*mg (orange); Oral susp: 500 mg/5 ml (120 ml) (orange) Comment: thiabendazole is not for prophylaxis and should not be used as first-line therapy for pinworms. May impair mental alertness. May not be available in the US.

### **PITYRIASIS ALBA**

Comment: Pityriasis alba is a chronic skin disorder seen in children with a genetic predisposition to atopic disease. Treatment is directed toward controlling roughness and pruritus. There is no known treatment for the associated skin pigment changes. Pityriasis alba resolves spontaneously and permanently in the 2nd or 3rd decade of life. Topical Corticosteroids see page 494

### **COAL TAR PREPARATIONS**

coal tar (C)

Scytera (OTC) apply qd-qid; use lowest effective dose

Foam: 2%

T/Gel Shampoo Extra Strength (OTC) use every other day; max 4 x/week; massage into affected area for 5 minutes; rinse; repeat

Shampoo: 1%

T/Gel Shampoo Original Formula (OTC) use every other day; max 7 x/week; massage into affected area for 5 minutes; rinse; repeat

Shampoo: 0.5%

T/Gel Shampoo Stubborn Itch Control (OTC) use every other day; max 7 x/ week; massage into affected area for 5 minutes; rinse; repeat *Shampoo*: 0.5%

### **EMOLLIENTS AND OTHER MOISTURIZING AGENTS**

See Dermatitis: Atopic page 102

### PITYRIASIS ROSEA

Topical Corticosteroids see page 494

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

# PLAGUE (YERSINIA PESTIS)

**Comment:** *Yersinia pestis* is transmitted via the bite of a flea from an infected rodent <u>or</u> the bite, lick, <u>or</u> scratch of an infected cat. Untreated bubonic plague may progress to secondary pneumonic plague, which may be transmitted via contaminated respiratory droplet spread.

streptomycin (C)(G) 15 mg/kg IM bid x 10 days

Amp: 1 gm/2.5 ml or 400 mg/ml (2.5 ml)

Comment: For patients with renal impairment, reduce dose of *streptomycin* to 20 mg/kg/day if mild and 8 mg/kg/day q 3 days if advanced. For patients who are pregnant or who have hearing impairment, shorten the course of treatment to 3 days after fever has resolved.

moxifloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg daily x 10 days
</p>

Avelox *Tab*: 400 mg; IV soln: 400 mg/250 mg (latex-free, preservative-free) Comment: *moxifloxacin* is for prophylaxis as well as treatment for pneumonia and septic plague. *moxifloxacin* is contraindicated <18 years-of-age and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

Letracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 572 for dose by weight table; ≥8 years, >100 lb: 500 mg qid x 10 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

**Comment**: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.

### PNEUMOCYSTIS JIROVECII PNEUMONIA

atovaquone (C) <12 years: see mfr pkg insert for weight-based dosing table; ≥12 years: take as a single dose with food or a milky drink at the same time each day; repeat dose if vomited within 1 hour; Prophylaxis: 1,500 mg once daily; Treatment: 750 mg bid x 21 days</p>

Mepron Susp: 750 mg/5 ml (citrus)

trimethoprim/sulfamethoxazole (C)(G) < 2 months: not recommended; ≥ 2 months-12 years: 40 mg/kg/day of sulfamethoxazole in 2 doses bid x 10 days; > 12 years: Prophylaxis: 1 tab 3 x/week; Treatment: 1 tab daily x 3 weeks; Septra can be given if intolerable to Bactrim

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)



### PNEUMONIA: CHLAMYDIAL

#### RECOMMENDED REGIMEN

erythromycin base (B)(G) <45 kg: 50 mg in 4 divided doses x 10-14 days; ≥45 kg: 500 mg qid hours x 10-14 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

⇒ erythromycin ethylsuccinate (B)(G) <45 kg: 50 mg/kg/day in 4 divided doses x 10-14 days; ≥45 kg: same as adult; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

#### ALTERNATE REGIMENS

azithromycin (B)(G) <12 years: 20 mg/kg per dose once daily x 10 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg once daily x 10 days</p>

**Zithromax** *Tab*: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

▶ levofloxacin (C) <18 years: not recommended; ≥18 years: Uncomplicated: 500 mg daily x 7 days; Complicated: 750 mg daily x 7 days</p>

Levaquin Tab: 250, 500, 750 mg; Oral soln: 25 mg/ml (480 ml) (benzyl alcohol); Inj conc: 25 mg/ml for IV infusion after dilution (20, 30 ml single-use vial) (preservative-free); Premix soln: 5 mg/ml for IV infusion (50, 100, 150 ml) (preservative-free)

**Comment**: *levofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.



# PNEUMONIA: COMMUNITY ACQUIRED (CAP)/COMMUNITY ACQUIRED BACTERIAL PNEUMONIA (CABP)

#### ANTI-INFECTIVES

### Age 3 Months-5 Years

amoxicillin (B)(G) <40 kg (88 lb): 80-100 mg/kg/day divided q 12 hours x 10 days; see page 543 for dose by weight table; ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875 mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

→ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 45-90 mg/kg/day divided q 12 hours x 10 days; see page 545 for dose by weight table; ≥40 kg: 500 mg tid or 875 mg bid x 10 days

Tab: 250, 500, 875 mg, Chew tab: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); Oral susp: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended; ≥3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table; ≥40 kg: not recommended

Oral susp: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg once daily on days 2-5 or 500 mg once daily x 7-10 days</p>

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak *Tab*: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

▶ cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg

divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 250 mg tid or 375 mg bid x 10 days; max 2 gm/day

Tab: 500 mg; Cap: 250, 500 mg; Susp: 125 mg/5 ml (75, 150 ml) (strawberry);

187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid

Cetaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals Tab: 375, 500 mg ext-rel

ceftriaxone (B)(G)50-75 mg/kg IM in 2 divided doses; max 2 gm/day

Rocephin Vial: 250, 500 mg; 1, 2 g

> clarithromycin (C) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/kg divided bid x 7-14 days; see page 558 for dose by weight table; >12 years: 500 mg q 12 hours or 500 mg ext-rel daily x 10 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 7-10 days; ≥45 kg: 500 mg qid hours x 7-10 days
</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

> erythromycin estolate (B)(G)30-50 mg/kg/day in divided doses x 10 days; see page 562 for dose by weight table

**Ilosone** *Pulvule*: 250 mg; *Tab*: 500 mg; *Liq*: 125, 250 mg/5 ml (100 ml)

### Age 5-18 Years

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

≥ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

Tab: 250, 500, 875 mg; Chew tab: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); Oral susp: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

azithromycin (B)(G) <12 years: 10 mg/kg x 1 dose on day 1, then 5 mg/kg/day on days 2-5; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

Zithromax *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana) Zithromax Tri-pak *Tab*: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 250 mg tid or 375 mg bid x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

Tab: 375, 500 mg ext-rel

cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; ≥12 years: 300 mg bid x 10 days or 600 mg daily x 10 days</p>

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

- cefpodoxime proxetil (B) <2 months: nor recommended; 2 months-12 years: 10 mg/kg/day in 2 doses x 14 days; see page 553 for dose by weight table; >12 years: 200 mg bid x 14 days
- ceftriaxone (B) 50-75 mg/kg IM in 2 divided doses; max 2 gm/day Rocephin Vial: 250, 500 mg; 1, 2 g
- Clarithromycin (C) <6 months: not recommended; ≥6 months: 7.5 mg/kg bid x 7-14 days
  </p>

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

dirithromycin (C)(G) <12 years: not recommended; ≥12 years: 500 mg daily x 7-14 days
</p>

Dynabac Tab: 250 mg

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 10 days; ≥45 kg: 500 mg q 6 hours x 10 days</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

erythromycin estolate (B) <12 years: 30-50 mg/kg/day in divided doses x 10 days; see page 562 for dose by weight table; ≥12 years: 250 mg q 6 hours or 500 mg bid x 10 days Ilosone Pulvule: 250 mg; Tab: 500 mg; Liq: 125, 250 mg/5 ml (100 ml)</p>

### Age ≥18 Years Without Comorbidity

**amoxicillin** (B)(G) 500-875 mg bid or 250-500 mg tid x 10 days

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox *Tab*: 125, 250 mg; *Cap*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

⇒ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or bid x 10 days

Tab: 250, 500, 875 mg; Chew tab: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); Oral susp: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended; ≥3 months, <40 kg: 90 mg/kg/ dav divided a 12 hours x 10 days; see page 546 for dose by weight table; ≥40 kg: not

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR < 16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 davs

*Tab*: 1000\*mg ext-rel

azithromycin (B)(G) 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

cefaclor (B)(G) 250 mg tid or 375 mg bid x 10 days

Tab: 500 mg; Cap: 250, 500 mg; Susp: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with food

*Tab*: 375, 500 mg ext-rel

cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; ≥12 years: 300 mg bid x 10 days or 600 mg daily x 10 days

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

cefpodoxime proxetil (B) 200 mg bid x 14 days

ceftaroline fosamil (B) administer by IV infusion after reconstitution every 12 hours x 5-7 days; CrCl ≥50 mL/min: 600 mg; CrCl >30-<50 mL/min: 400 mg; CrCl: >15-<30 mL/min: 300 mg; ES RD: 200 mg

Teflaro Vial: 400, 600 mg

ceftriaxone (B)(G) 50-75 mg/kg IM in 2 divided doses; max 2 gm/day

Rocephin Vial: 250, 500 mg; 1, 2 g

clarithromycin (C)(G) 500 mg bid or 500 mg ext-rel daily x 7-14 days Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

*dirithromycin* (C)(G) 500 mg daily x 14 days

Dynabac Tab: 250 mg

*▶* doxycycline (D)(G)

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin *Tab:* 100 mg; *Cap:* 50, 100 mg; *Syr:* 50 mg/5 ml (raspberry-apple) (sulfites); *Oral susp:* 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

> ertapenem (B) 1 gm daily; CrCl <30 mL/min: 500 mg daily x 3-10 days; may switch to an oral antibiotic after 3 days if warranted; IV infusion: administer over 30 minutes; IM injection: reconstitute with lidocaine only

Invanz Vial: 1 gm pwdr for reconstitution

erythromycin base (B)(G) 500 mg q 6 hours x 14-21 days

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

> erythromycin estolate (B) 500 mg q 6 hours x 14-21 days

Ilosone *Pulvule*: 250 mg; *Tab*: 500 mg; *Liq*: 125, 250 mg/5 ml (100 ml)

gemifloxacin (C)(G) <18 years: not recommended; ≥18 years: 320 mg daily x 5-7 days
 Factive Tab: 320\* mg
</p>

Comment: *gemifloxacin* is contraindicated <18 years-of-age and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

levofloxacin (C) Uncomplicated: 500 mg once daily x 7-14 days; Complicated: 750 mg once daily x 7-14 days

**Levaquin** *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol); *Inj conc*: 25 mg/ml for IV infusion after dilution (20, 30 ml single-use vial) (preservative-free); *Premix soln*: 5 mg/ml for IV infusion (50, 100, 150 ml) (preservative-free)

**Comment:** *levofloxacin* is contraindicated <18 years-of-age and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

▶ linezolid (C)(G) <5 years: 10 mg/kg q 8 hours x 10-14 days; 5-11 years: 10 mg/kg q 12 hours x 10-14 days; >11 years: 400-600 mg q 12 hours x 10-14 days Zyvox Tab: 400, 600 mg; Oral susp: 100 mg/5 ml (150 ml) (orange) (phenylalanine)

Comment: *linezolid* is indicated to treat susceptible vancomycin-resistant *E. faecium* infections.

► loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 10 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 10 days

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

moxifloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg daily x 5 days
 Avelox Tab: 400 mg; IV soln: 400 mg/250 mg (latex-free, preservative-free)
</p>

Comment: *moxifloxacin* is contraindicated during pregnancy and lactation. Risk of tendonitis or tendon rupture.

P ofloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg bid x 10 days Floxin Tab: 200, 300, 400 mg

Comment: *ofloxacin* is contraindicated <18 years-of-age and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

★ tedizolid phosphate (B) administer 200 mg once daily x 6 days, via PO or IV infusion over 1 hour

Sivextro Tab: 200 mg (6/blister pck)

**Comment:** Sivextro is indicated for the treatment of community acquired bacterial pneumonia (CABP)

► *telithromycin* (C) 2 x 400 mg tabs in a single dose daily x 7-10 days

Ketek Tab: 300, 400 mg

**Comment**: *telithromycin* is contraindicated with PMHx hepatitis <u>or</u> jaundice associated with macrolide use.

tigecycline (D)(G) 100 mg once; then 50 mg q 12 hours x 7-14 days; Severe hepatic impairment (Child Pugh C): 100 mg once; then 25 mg q 12 hours

Tygacil *Vial*: 50 mg pwdr for reconstitution and IV infusion (preservative-free) Comment: Tygacil is contraindicated in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photo-sensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

# | |

### PNEUMONIA: LEGIONELLA

ciprofloxacin (C) <18 years: 20-40 mg/kg/day divided q 12 hours x 14-21 days; ≥18 years: 500 mg bid x 14-21 days; max 1.5 gm/day
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

**Cipro XR** *Tab*: 500, 1,000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Clarithromycin (C)(G) 500 mg bid or 500 mg ext-rel daily x 14-21 days
 Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

*dirithromycin* (C)(G) 500 mg once daily x 14-21 days

Dynabac Tab: 250 mg

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 14-21 days; ≥45 kg: 500 mg qid x 14-21 days</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

erythromycin estolate (B)(G) <12 years: 30-50 mg/kg/day in divided doses x 14-21 days; see page 562 for dose by weight table; ≥12 years: 1-2 gm daily in divided doses x 14-21 days</p>

Ilosone Pulvule: 250 mg; Tab: 500 mg; Liq: 125, 250 mg/5 ml (100 ml)

► trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended;  $\geq$ 2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid x 10 days; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)



### PNEUMONIA: MYCOPLASMA

#### ANTI-INFECTIVES

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2 gm in a single dose</p>

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/kg bid x 14-21 days; see page 558 for dose by weight table; >12 years: 500 mg bid or 500 mg ext-rel daily x 14-21 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 doses x 14-21 days; ≥45 kg: 500 mg q 6 hours x 14-21 days</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

betracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses x 14-21 days; see page 574 for dose by weight table; ≥8 years, >100 lb: 500 mg qid x 14-21 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

### PNEUMONIA: PNEUMOCOCCAL

#### PROPHYLAXIS

pneumococcal vaccine (C) <2 years: not recommended; ≥2 years: 0.5 ml IM or SC in deltoid x 1 dose</p>

Pneumovax Vial: 25 mcg/0.5 ml (0.5 ml single dose, 10/pck; 2.5 ml)

Pnu-Imune 23 Vial: 25 mcg/0.5 ml (0.5 ml single dose, 5/pck; 2.5 ml)

Comment: Pneumococcal vaccine contains 23 polysaccharide isolates representing approximately 85-90% of common U.S. isolates. Administer the pneumococcal vaccine in the anterolateral aspect of the thigh for infants and the deltoid for toddlers and children.

#### TREATMENT

see CAP/CABP page 330



### **PROPHYLAXIS**

trivalent poliovirus vaccine, inactivated (type 1, 2, and 3) (C) <6 weeks: not recommended; ≥6 weeks: one dose at 2, 4, 6-18 months and 4-6 years-of-age
 Ipol 0.5 ml SC or IM in deltoid area
</p>



See Contraceptives page 475 See Type 2 Diabetes Mellitus page 422

## POLYMYALGIA RHEUMATICA

Comment: Initial treatment is low-dose prednisone at 12-25 mg/day. May attempt a very slow tapering regimen after 2-4 weeks. If relapse occurs, increase the daily dose of corticosteroid to the previous effective dose. Most people with polymyalgia rheumatica need to continue corticosteroid treatment for at least a year. Approximately 30-60% of people will have at least one relapse during corticosteroid tapering. Joint guidelines from the American Academy of Rheumatology (AAR) and the European League Against Rheumatism (ELAR) suggest using concomitant methotrexate (MTX) along with corticosteroids in some patients. It may be useful early in the course of treatment or later, if the patient relapses or does not respond to corticosteroids. The American Academy of Rheumatology (AAR) recommends the following daily doses for anyone on a chronic oral corticosteroid regimen: Calcium 1,200-1,500 mg/day and vitamin D 800-1,000 IU/day.

### Oral Corticosteroids see page 498

For calcium and vitamin D supplementation, see Hypocalcemia page 219

methotrexate (X) < 2 years: not recommended; 2-12 years: 10 mg/m² once weekly; max 20 mg/m²; > 12 years: 7.5 mg x 1 dose per week or 2.5 mg x 3 at 12 hour intervals once a week; max 20 mg/week; therapeutic response begins in 3-6 weeks; administer methotrexate injection SC only into the abdomen or thigh

**Rasuvo** *Autoinjector*: 7.5 mg/0.15 ml, 10 mg/0.20 ml, 12.5 mg/0.25 ml, 15 mg/0.30 ml, 17.5 mg/0.35 ml, 20 mg/0.40 ml, 22.5 mg/0.45 ml, 25 mg/0.50 ml, 27.5 mg/0.55 ml, 30 mg/0.60 ml (solution concentration for SC injection is 50 mg/ml)

**Rheumatrex** *Tab*: 2.5\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit dose pack) **Trexall R** *Tab*: 5\*, 7.5\*, 10\*, 15\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit dose pack)

Comment: *methotrexate* (MTX) is contraindicated with immunodeficiency, blood dyscrasias, alcoholism, and chronic liver disease.



### **POSTHERPETIC NEURALGIA**

### GAMMA AMINORUTYRIC ACID ANALOG

**gabapentin** (C) <3 years: not recommended; 3-12 years: initially 10-15 mg/kg/day in 3 divided doses; max 12 hours between doses; titrate over 3 days; 3-4 years: titrate to 40 mg/kg/day; 5-12 years; titrate to 25-35 mg/kg/day; max 50 mg/kg/day; >12 years; initially 300 mg on Day 1: then 600 mg on Day 2: then 900 mg on Days 3-6: then 1200 mg on Days 7-10; then 1500 mg on Days 11-14; titrate up to 1800 mg on Day 15; take entire dose once daily with the evening meal; do not crush, split, or chew

Gralise (C) Tab: 300, 600 mg

Neurontin (G) Tab: 600\*, 800\* mg; Cap: 100, 300, 400 mg; Oral soln: 250 mg/5 ml (480 ml) (strawberry-anise)

Tab: 600\*, 800\* mg; Cap: 100, 300, 400 mg; Oral soln: 250 mg/5 ml (480 ml) (strawberry-anise)

**Comment**: Avoid abrupt cessation of *gabapentin*. To discontinue, withdraw gradually over 1 week or longer.

**p** gabapentin enacarbil (C) <18 years: not recommended; ≥18 years: 600 mg once daily at about 5: 00 PM; if dose not taken at recommended time, next dose should be taken the following day; swallow whole; take with food; CrCl 30-59 mL/min: 600 mg on Day 1, Day 3, and every day thereafter; CrCl < 30 mL/min: or on hemodialysis: not recommended

Horizant Tab: 600 ext-rel

Comment: Avoid abrupt cessation of gabapentin enacarbil. To discontinue, withdraw gradually over 1 week or longer.

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

**Comment**: Co-administration of SSRIs and TCAs requires extreme caution.

- $\Rightarrow$  amitriptyline (C)(G) <12 years: not recommended;  $\geq$ 12 years: 10-20 mg q HS Tab: 10, 25, 50, 75, 100, 150 mg
- *amoxapine* (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)

Tab: 25, 50, 100, 150 mg

- clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS **Anafranil** *Cap*: 25, 50, 75 mg
- $\triangleright$  desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

- $\triangleright$  doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)
- imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg

Cap: 75, 100, 125, 150 mg

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tidqid; max 150 mg/day

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day
</p>

Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg

### a<sub>2</sub>-DELTA LIGAND

pregabalin (GABA analog) (C)(V) <18 years: not recommended; ≥18 years: initially 150 mg daily divided bid-tid and may titrate within one week; max 600 mg divided bid-tid; discontinue over one week</p>

Lyrica Cap: 25, 50, 75, 100, 150, 200, 225, 300 mg; Oral soln: 20 mg/ml

### TOPICAL/TRANSDERMAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years; apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0, 075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

diclofenac epolamine (C) <12 years: not recommended; ≥12 years: apply one patch
 to affected area bid; remove during bathing; avoid non-intact skin; do not reuse
 Flector Patch Patch: 180 mg/patch (30/carton)
</p>

Comment: diclofenac is contraindicated with aspirin allergy and late pregnancy.

doxepin cream (B) <12 years: not recommended; ≥12 years: apply to affected area qid at intervals of at least 3-4 hours; max 8 days
</p>

Prudoxin *Crm*: 5% (45 gm) Zonalon *Crm*: 5% (30, 45 gm)

pimecrolimus 1% cream (C) <2 years: not recommended; ≥2 years: apply to affected area bid; do not occlude
</p>

Elidel Crm: 1% (30, 60, 100 gm)

Comment: *pimecrolimus* is indicated for short-term and intermittent long-term use. Discontinue use when resolution occurs. Contraindicated if the patient is immunosuppressed. Change to the 0.1% preparation <u>or</u> if secondary bacterial infection is present.

tacrolimus (C) <2 years: not recommended; 2-15 years: use 0.03% strength; apply to affected area bid; continue for 1 week after clearing; >15 years: apply to affected area bid; do not occlude or apply to wet skin; continue for 1 week after clearing

Protopic Oint: 0.03, 0.1% (30, 60, 100 gm)

trolamine salicylate (NE) <2 years: not recommended; ≥2 years: apply tid-qid prn
to intact skin
</p>

Mobisyl Crm: 10%

Comment: Provides some relief by 1-2 weeks; optimal benefit

#### TOPICAL/TRANSDERMAL ANESTHETICS

*lidocaine* cream (B) <12 years: not recommended; ≥12 years:

LidaMantle Crm: 3% (1, 2 oz)

Lidoderm Crm: 3% (85 gm)

*lidocaine* lotion (B) <12 years: not recommended; ≥12 years:

LidaMantle Lotn: 3% (177 ml)

- ▶ lidocaine 5% patch (B)(G) <12 years: not recommended; ≥12 years: apply up to 3 patches at one time for up to 12 hours/24-hour period (12 hours on/12 hours off); patches may be cut into smaller sizes before removal of the release liner; do not reuse Lidoderm Patch: 5% (10 x 14 cm; 30/carton)</p>
- ightharpoonup *lidocaine/dexamethasone* (B) <12 years: not recommended;  $\geq$ 12 years:

Decadron Phosphate with Xylocaine dexa 4 mg/lido 10 mg per ml (5 ml)

▶ lidocaine/hydrocortisone (B)(G) <12 years: not recommended; ≥12 years: LidaMantle HC Crm: lido 3%/hydro 0.5% (1, 3 oz); Lotn: (177 ml)

### **ORAL ANALGESICS**

- ➤ acetaminophen (B)(G) see Fever page 137
- aspirin (D)(G) see Fever page 137

Comment: aspirin-containing medications are contraindicated with history of allergic-type reaction to aspirin, children and adolescents with *Varicella* or other viral illness, and 3rd trimester pregnancy.

**Comment:** *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Rybix ODT <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended; Cirrhosis: max 50 mg q 12 hours

ODT: 50 mg (mint) (phenylalanine)

Ryzolt <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl <30 mL/min or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

Ultram <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 50-100 mg q 4-6 hours prn; max 400 mg/day; CrCl <30 mL/min: max 100 mg q 12 hours; Cirrhosis: max 50 mg q 12 hours

*Tab*: 50\*mg

**Ultram ER** <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain;  $\geq$ 18 years: initially 100 mg once daily; may increase by 100 mg every 5 days; max 300 mg/day; CrCl < 30 mL/min: or severe hepatic impairment: not recommended

Tab: 100, 200, 300 mg ext-rel

tramadol/acetaminophen (C)(IV)(G) <12 years: contraindicated; 12-<18: use extreme caution; not recommended for children and adolescents with obesity, asthma, obstructive sleep apnea, or other chronic breathing problem, or for post-tonsillectomy/adenoidectomy pain; ≥18 years: 2 tabs q 4-6 hours; max 8 tabs/day; 5 days; CrCl <30 mL/min: max 2 tabs q 12 hours; max 4 tabs/day x 5 days
</p>

Ultracet Tab: tram 37.5/acet 325 mg

Comment: *Tramadol* is known to be excreted in breast milk. The FDA and the European Medicines Agency (EMA) are investigating the safety of using *tramadol*-containing medications to treat pain in children 12-18 years because of the potential for serious side effects, including slowed or difficult breathing.

Other Oral Analgesics see Pain page 298

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

**Comment**: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS Tab:
   10, 25, 50, 75, 100, 150 mg
  </p>
- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)</p>

Tab: 25, 50, 100, 150 mg

clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS

**Anafranil** *Cap*: 25, 50, 75 mg

desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
</p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day

day
</p>

Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)

 $\triangleright$  *imipramine* (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

**Tofranil PM** initially 75 mg daily 1 hour before HS; max 200 mg *Cap*: 75, 100, 125, 150 mg

 nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tidqid; max 150 mg/day

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day</p>
Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

Surmontil Cap: 25, 50, 100 mg

### **POST-TRAUMATIC STRESS DISORDER (PTSD)**

Comment: No one pharmacological agent has emerged as the best treatment for PTSD. A combination of pharmacological agents (e.g., antidepressants, non-adrenergic agents, antipsychosis drugs) may comprise an individualized treatment plan to successfully manage core symptoms of PTSD as well as associated anxiety, depression, sleep disturbances, and co-occurring psychiatric disorders.

### SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

Comment: The FDA has approved two SSRIs for the treatment of PTSD: paroxetine and sertraline. However, the safety and efficacy of other SSRIs (fluoxetine, citalopram, escitalopram, fluvoxamine) have been tested in clinical practice. Co-administration of SSRIs with TCAs requires extreme caution. Concomitant use of MAOIs and SSRIs is absolutely contraindicated. Avoid St. John's wort and other serotonergic agents. A potentially fatal adverse event is serotonin syndrome, caused by serotonin excess. Milder symptoms require HCP intervention to avert severe symptoms that can be rapidly fatal without urgent/emergent medical care. Symptoms include restlessness, agitation, confusion, hallucinations, tachycardia, hypertension, dilated pupils, muscle twitching, muscle rigidity, loss of muscle coordination, diaphoresis, diarrhea, headache, shivering, piloerection, hyperpyrexia, cardiac arrhythmias, seizures, loss of consciousness, coma, and death. Abrupt withdrawal or interruption of treatment with an antidepressant medication is sometimes associated with an antidepressant discontinuation syndrome, which may be mediated by gradually tapering the drug over a period of two weeks or longer, depending on the dose strength and length of treatment. Common symptoms of the serotonin discontinuation syndrome include flu-like symptoms (nausea, vomiting, diarrhea, headaches, sweating), sleep disturbances (insomnia, nightmares, constant sleepiness), mood disturbances (dysphoria, anxiety, agitation), cognitive disturbances (mental confusion, hyperarousal), sensory and movement disturbances (imbalance, tremors, vertigo, dizziness, electric-shock-like sensations in the brain, often described by sufferers as "brain zaps").

- citalopram (C)(G) <12 years: not recommended; ≥12 years: initially 20 mg once daily; may increase after one week to 40 mg once daily; max 40 mg
  </p>
  - Celexa Tab: 10, 20, 40 mg; Oral soln: 10 mg/5 ml (120 ml) (pepper mint)(sugar-free, alcohol-free, parabens)
- escitalopram (C)(G) <12 years: not recommended; 12-17 years: initially 10 mg daily; may increase to 20 mg daily after 3 weeks; ≥17 years: initially 10 mg daily; may increase to 20 mg daily after 1 week; Hepatic impairment: 10 mg once daily</p>

Lexapro Tab: 5, 10\*, 20\*mg

Lexapro Oral Solution Oral soln: 1 mg/ml (240 ml) (peppermint) (parabens) 

→ fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10 mg/day; may increase after 1 week to 20 mg/day; range 20-60 mg/day; range for lower weight children, 20-30 mg/day; ≥17 years: initially 20 mg daily; may increase after 1 week; doses >20 mg/day should be divided into AM and noon doses; max 80

mg/day

Cap: 10, 20, 40 mg; Tab: 30\*, 60\*mg; Oral soln: 20 mg/5 ml (4 oz) (mint)

Prozac Weekly <12 years: not recommended; ≥12 years: following daily fluoxetine therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after the last 20 mg fluoxetine dose

Cap: 90 mg ent-coat del-rel pellets

levomilnacipran (C) <12 years: not recommended; ≥12 years: swallow whole; initially 20 mg once daily for 2 days; then increase to 40 mg once daily; may increase dose in 40 mg increments at intervals of ≥2 days; max 120 mg once daily; CrCl 30-59 mL/min: max 80 mg once daily; CrCl 15-29 mL/min: max 40 mg once daily</p>

Fetzima Cap: 20, 40, 80, 120 mg ext-rel

paroxetine maleate (D)(G)

Paxil <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day

Tab: 10\*, 20\*, 30, 40 mg

Paxil CR <12 years: not recommended; ≥12 years: initially 25 mg daily in AM; may increase by 12.5 mg at weekly intervals as needed; max 62.5 mg/day

Tab: 12.5, 25, 37.5 mg cont-rel ent-coat

Paxil Suspension <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day

Oral susp: 10 mg/5 ml (250 ml) (orange)

Sertraline (C)(G) <6 years: not recommended; 6-<12 years: initially 25 mg daily; max 200 mg/day; 12-17 years: initially 50 mg daily; max 200 mg/day ≥17 years: initially 50 mg daily; increase at 1 week intervals if needed; max 200 mg daily; dilute oral concentrate immediately prior to administration in 4 oz water, ginger ale, lemon/lime soda, lemonade, or orange juice</p>

**Zoloft** *Tab*: 25\*, 50\*, 100\*mg; *Oral conc*: 20 mg per ml (60 ml) (alcohol 12%)

#### ATYPICAL ANTIPSYCHOSIS DRUGS

Zyprexa Tab: 2.5, 5, 7.5, 10, 15, 20 mg

**Zyprexa Zydis** *ODT*: 5, 10, 15, 20 mg (phenylalanine)

### → quetiapine (C)(G)

SeroQUEL <10 years: not recommended; 10-17 years: initially 25 mg bid, titrate q 2nd or 3rd day in increments of 25-50 mg bid-tid; max 600 mg/day in 2-3 divided doses; >17 years: initially 25 mg bid, titrate q 2nd or 3rd day in increments of 25-50 mg bid-tid; usual maintenance 400-600 mg/day in 2-3 divided doses

Tab: 25, 50, 100, 200, 300, 400 mg

SeroQUEL XR <18 years: not recommended; ≥18 years: swallow whole; administer once daily in the PM; *Day 1*: 50 mg; *Day 2*: 100 mg; *Day 3*: 200 mg; *Day 4*: 300 mg; usual range 400-600 mg/day

Tab: 50, 150, 200, 300, 400 mg ext-rel

### risperidone (C)

Comment: Risperdal tabs, oral solution, and M-tabs are indicated for the short-term monotherapy of acute mania or mixed episodes associated with bipolar I disorder, or in combination with *lithium* or valproic acid in patients >12 years-of-age. Risperdol Consta is indicated as monotherapy or adjunctive therapy to *lithium* or valproic acid for the maintenance treatment mania and mixed episodes in bipolar I disorder.

Risperdal <5 years: not established; 5-10 years: initially 0.5 mg once daily at the same time each day adjust at 24 hour intervals by 0.5-1 mg to target dose 2.5 mg/day; usual range 1-6 mg/day; max 6 mg/day; >10 years: *Tab*: initially 2-3 mg once daily; may adjust at 24 hour intervals by 1 mg/day; usual range 1-6 mg/day; max 6 mg/day; *Oral soln*: do not take with cola or tea

Tab: 0.25, 0.5, 1, 2, 3, 4 mg; Oral soln: 1 mg/ml (100 ml)

Risperdal Consta <18 years: not established; ≥18 years: administer deep IM in the deltoid or gluteal; give with oral *respiridone* or other antipsychotic x 3 weeks; then stop oral form; 25 mg IM every 2 weeks; max 50 mg every 2 weeks

Vial: 12.5, 25, 37.5, 50 mg pwdr for long-acting IM inj after reconstitution, single use w. diluent and supplies

Risperdal M-Tab <10 years: not established; ≥10 years: dissolve on tongue with or without fluid

M-Tab: 0.5, 1, 2, 3, 4 mg orally-disint (phenylalanine)

### NON-ADRENERGIC AGENTS

### **ALPHA-1 ANTAGONISTS**

 prazosin (C)(G) <12 years: not recommended: ≥12 years: first dose at HS, 1 mg bid-tid; increase dose slowly; usual range 6-15 mg/day in divided doses; max 20-40 mg/day

Minipress Cap: 1, 2, 5 mg

Comment: *prazosin* is useful in reducing nightmares and other sleep disturbances.

#### CENTRAL ALPHA2A-AGONISTS

### clonidine (C)

Comment: *clonidine* is useful to reduce nightmares, hypervigilance, startle reactions, and outbursts of rage.

Catapres <12 years: not recommended; ≥12 years: initially 0.1 mg bid; usual range 0.2-0.6 mg/day in divided doses; max 2.4 mg/day

Tab: 0.1\*, 0.2\*, 0.3\*mg

Catapres-TTS <12 years: not recommended; ≥12 years: initially 0.1 mg patch weekly; increase after 1-2 weeks if needed; max 0.6 mg/day

Patch: 0.1, 0.2 mg/day (12/carton); 0.3 mg/day (4/carton)

Kapvay (G) <12 years: not recommended;  $\ge$ 12 years: initially 0.1 mg bid; usual range 0.2-0.6 mg/day in divided doses; max 2.4 mg/day

Tab: 0.1, 0.2 mg

Nexiclon XR <12 years: not recommended; ≥12 years: initially 0.18 mg (2 ml) suspension or 0.17 mg tab once daily; usual max 0.52 mg (6 ml suspension) once daily

Tab: 0.17, 0.26 mg ext-rel; Oral susp: 0.09 mg/ml ext-rel (4 oz)

### BETA-ADRENERGIC BLOCKER (NON-CARDIOSELECTIVE)

▶ propranolol (C)(G)

Comment: *propranolol* is useful to mediate hyperarousal. For other noncardioselective beta-adrenergic blockers, *see* Hypertension *page* 200

Inderal <12 years: not recommended; ≥12 years: initially 10 mg bid; usual range 160-320 mg/day in divided doses

Tab: 10\*, 20\*, 40\*, 60\*, 80\*mg

Inderal LA <12 years: not recommended; ≥12 years: initially 80 mg daily in a single dose; increase q 3-7 days; usual range 120-160 mg/day; max 320 mg/day in a single dose

Cap: 60, 80, 120, 160 mg sust-rel

InnoPran XL <12 years: not recommended; ≥12 years: initially 80 mg q HS; max 120 mg/day

Cap: 80, 120 mg ext-rel

### SEROTONIN AND NOREPINEPHRINE REUPTAKE INHIBITORS (SNRIS)

desvenlafaxine (C)(G) <18 years: not recommended; ≥18 years: swallow whole; initially 50 mg once daily; max 120 mg/day
</p>

Pristiq Tab: 50, 100 mg ext-rel

duloxetine (C)(G) <12 years: not recommended; ≥12 years: swallow whole; initially 30 mg once daily x 1 week; then, increase to 60 mg once daily; max 120 mg/day Cymbalta Cap: 20, 30, 40, 60 mg del-rel</p>

▶ venlafaxine (C)(G)

Effexor <12 years: not recommended; ≥12 years: initially 75 mg/day in 2-3 divided doses; may increase at 4 day intervals in 75 mg increments to 150 mg/day; max 225 mg/day

Tab: 37.5, 75, 150, 225 mg

Effexor XR <18 years: not recommended; ≥18 years: initially 75 mg q AM; may start at 37.5 mg daily x 4-7 days, then increase by increments of up to 75 mg/day at intervals of at least 4 days; usual ax 375 mg/day

Tab/Cap: 37.5, 75, 150 mg ext-rel

vortioxetine (C) <18 years: not established; ≥18 years: initially 10 mg once daily; max 30 mg/day</p>

Brintellix Tab: 5, 10, 15, 20 mg

### **5HT2/3 RECEPTOR BLOCKERS**

mirtazapine (C) <12 years: not established; ≥12 years: initially 15 mg q HS; increase at intervals of 1-2 weeks; 1-2 weeks; usual range 15-60 mg/day; max 60 mg/day
</p>

Remeron Tab: 15\*, 30\*, 45\*mg

Remeron SolTab ODT: 15, 30, 45 mg (orange) (phenylalanine)

### SEROTONIN/ACETYLCHOLINE/NOREPINEPHRINE/DOPAMINE BLOCKER

trazodone (C)(G) <18 years: not recommended; ≥18 years: initially 150 mg/day</p> in divided doses with food; increase by 50 mg/day q 3-4 days; max 400 mg/day in divided doses or 50-400 mg at HS

Oleptro Tab: 50, 100\*, 150\*, 200, 250, 300 mg

### TRICYCLIC ANTIDEPRESSANTS (TCAs)

**Comment**: Co-administration of SSRIs and TCAs requires extreme caution.

- $\Rightarrow$  amitriptyline (C)(G) <12 years; not recommended;  $\geq$ 12 years: 10-20 mg q HS Tab: 10, 25, 50, 75, 100, 150 mg
- **amoxapine** (C) <12 years: not recommended: ≥12 years: initially 50 mg bid-tid: after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)

Tab: 25, 50, 100, 150 mg

- clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is smaller; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS **Anafranil** *Cap*: 25, 50, 75 mg
- $\triangleright$  desipramine (C)(G) < 12 years: not recommended;  $\ge$  12 years: 100-200 mg/day in single or divided doses; max 300 mg/day

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

- $\triangleright$  doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day Cap: 10, 25, 50, 75, 100, 150 mg; Oral conc: 10 mg/ml (4 oz w. dropper)
- $\triangleright$  imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg Cap: 75, 100, 125, 150 mg

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tidgid: max 150 mg/day

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

▶ protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day Vivactil Tab: 5, 10 mg

► trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day

Surmontil Cap: 25, 50, 100 mg

### MONOAMINE OXIDASE INHIBITORS (MAOIS)

Comment: Many drug and food interactions with this class of drugs; use cautiously. MAOIs should be reserved for refractory depression that has not responded to other classes of antidepressants. Concomitant use of MAOIs and SSRIs is contraindicated. See mfr pkg insert for drug and food interactions. MAOIs have been used to reduce recurrent recollections of the trauma, nightmares, flashbacks, numbing, sleep disturbances, and social withdrawal in PTSD.

phenelzine (C)(G) <16 years: not recommended; ≥16 years: initially 15 mg tid; max 90 mg/day

Nardil Tab: 15 mg

> selegiline (C) <12 years: not recommended; ≥12 years: initially 10 mg tid; max 60 mg/day</p>

Emsam *Transdermal patch*: 6 mg/24 hrs, 9 mg/24 hrs, 12 mg/24 hrs Comment: At the Emsam transdermal patch 6 mg/24 hrs dose, the dietary restrictions commonly required when using non-selective MAOIs are not necessary.



### **PREGNANCY**

### see Appendix Z: Prescription Prenatal Vitamins page 520

Comment: Prenatal vitamins should have at least 400 mcg of folic acid content. Take one dose once daily. It is recommended that prenatal vitamins be started at least 3 months prior to conception to improve preconception nutritional status, and continued throughout pregnancy and the postnatal period, in lactating and non-lactating females, and throughout the childbearing years.

#### NAUSEA/VOMITING

▶ doxylamine succinate/pyridoxine (A)(G)do not crush or chew; take on an empty stomach with water; initially 2 tabs at HS on day 1; may increase to 1 tab AM and 2 tabs at HS day 2; may increase to 1 tab AM, 1 tab mid-afternoon, 2 tabs at HS; max 4 tabs/day

Diclegis Tab: doxyl 10 mg/pyri 10 mg del-rel

**Comment:** Diclegis is the only FDA-approved drug for the treatment of morning sickness. It has not been studied in females with hyperemesis gravidarum.

> promethazine (C) <2 years: not recommended; 2-12 years: 0.5 mg/lb or 6.25-25 mg q 4-6 hours PO or rectally; >12 years: 12.5-25 q 4-6 hours PO or rectally

Phenergan Tab: 12.5\*, 25\*, 50 mg; Plain syr: 6.25 mg/5 ml; Fortis syr: 25 mg/5 ml; Rectal supp: 12.5, 25, 50 mg; Amp: 25, 50 mg/ml (1 ml)

Comment: *promethazine* is contraindicated in children with uncomplicated nausea, dehydration, Reye's syndrome, history of sleep apnea, asthma, and lower respiratory disorders in children. *Promethazine* lowers the seizure threshold in children, may cause cholestatic jaundice, anticholinergic effects, extrapyramidal effects, and potentially fatal respiratory depression.

ondansetron (C)(G) <4 years: not recommended; 4-11 years: 4-8 mg bid prn; >11 hours: 8 mg q 8 hours prn

**Zofran** *Tab*: 4, 8, 24 mg

**Zofran Injection** *Vial*: 2 mg/ml (2 ml single dose); 2 mg/ml (20 ml multidose) for IV or IM administration

**Zofran ODT** *ODT*: 4, 8 mg (strawberry) (phenylalanine)

Zofran Oral Solution Oral soln: 4 mg/5 ml (50 ml) (strawberry) Zuplenz Oral Soluble Film: 4, 8 mg orally-disint (10/carton) (peppermint)



### PREMENSTRUAL DYSPHORIC DISORDER (PMDD)

Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Other Oral Contraceptives see page 475

#### ORAL ESTROGEN/PROGESTERONE COMBINATIONS

Comment: Rajani (a generic form of Beyaz) and Yaz, also available in generic forms (Gianvi, Ocella, Syeda, Vestura, Yasmin, Zarah), have an FDA indication for treatment of PMDD in post-menarchal females who choose to use an OCP. Contraindicated with renal and adrenal insufficiency. Monitor K+ level during the first cycle if the patient is at risk for hyperkalemia for any reason. If the patient is taking a drug that increases serum potassium (e.g., ACEIs, ARBS, NSAIDs, K+ sparing diuretics), the patient is at risk for hyperkalemia.

ethinyl estradiol/drospirenone (X)(G) Pre-menarchal: not indicated; Post-menarchal: 1 tab once daily x 28 days; repeat cycle; start on first Sunday after menses begins or on first day of next menses

Yaz Tab: ethin estra 20 mcg/drospir 3 mg

ethinyl/estradiol/drospirenone/levomefolate calcium (X)(G) Pre-menarchal: not indicated; Post-menarchal: 1 tab once daily x 28 days; repeat cycle; start on first Sunday after menses begins or on first day of next menses preceded by a negative pregnancy test

Beyaz Tab: ethin estra 20 mcg/drospir 3 mg/levo 0.451 mg Rajani Tab: ethin estra 20 mcg/drospir 3 mg/levo 0.451 mg

### DIURETICS

> spironolactone (D)(G) <12 years: not recommended; ≥12 years: initially 50-100 mg once daily or in divided doses; titrate at 2-week intervals</p>

Aldactone Tab: 25, 50\*, 100\*mg

### **ANTIDEPRESSANTS**

▶ fluoxetine (C)(G)

Prozac <8 years: not recommended; 8-17 years: initially 10 or 20 mg/day; start lower weight children at 10 mg/day; if starting at 10 mg/day, may increase after 1 week to 20 mg/day; ≥17 years: initially 20 mg daily; may increase after 1 week; doses >20 mg/day should be divided into AM and noon doses; max 80 mg/day Tab: 10\*mg; Cap: 10, 20, 40 mg; Oral soln: 20 mg/5 ml (4 oz) (mint)

Prozac Weekly <8 years: not recommended; ≥8 years: following daily *fluoxetine* therapy at 20 mg/day for 13 weeks, may initiate Prozac Weekly 7 days after the last 20 mg *fluoxetine* dose

Cap: 90 mg ent-coat del-rel pellets

Sarafem <8 years: not recommended; ≥8 years: administer daily or 14 days before expected menses and through first full day of menses; initially 20 mg/day; max 80 mg/day

Tab: 10, 15, 20 mg; Cap: 20 mg

### paroxetine maleate (D)(G)

Paxil <12 years: not recommended;  $\geq$ 12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day

Tab: 10\*, 20\*, 30, 40 mg

Paxil CR <12 years: not recommended; ≥12 years: initially 25 mg daily in AM; may increase by 12.5 mg at weekly intervals as needed; max 62.5 mg/day; may start 14 days before and continue through day one of menses

Tab: 12.5, 25, 37.5 mg cont-rel ent-coat

Paxil Suspension <12 years: not recommended; ≥12 years: initially 20 mg daily in AM; may increase by 10 mg/day at weekly intervals as needed; max 60 mg/day

Oral susp: 10 mg/5 ml (250 ml) (orange)

➤ sertraline (C) <12 years: not recommended; ≥12 years: For 2 weeks prior to onset of menses: initially 50 mg daily x 3; then increase to 100 mg daily for remainder of the cycle; For full cycle: initially 50 mg daily; then may increase by 50 mg/day each cycle to max 150 mg/day

Zoloft *Tab*: 25\*, 50\*, 100\*mg; *Oral conc*: 20 mg per ml (60 ml) (alcohol 12%); dilute just before administering in 4 oz water, ginger ale, lemon-lime soda, lemonade, <u>or</u> orange juice

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid-qid; max 150 mg/day</p>

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml

### **CALCIUM SUPPLEMENTS**

*⇒ calcium* (C) 1200 mg/day See Osteoporosis page 282

### PROCTITIS: ACUTE (PROCTOCOLITIS/ENTERITIS)

Comment: The following regimen for the treatment of proctitis, proctocolitis, and enteritis is published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines.

#### RECOMMENDED REGIMEN

ceftriaxone (B)(G) 250 mg IM in a single dose Rocephin Vial: 250, 500 mg; 1, 2 g

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in 1-2 divided doses x 7 days; ≥8 years, >100 lb: 100 mg bid x 7 days; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\* mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

(sumics), Oral susp. 23 mg/3 mi (raspoci

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within 2 hours of taking another drug.

### PROSTATITIS: ACUTE

### **ANTI-INFECTIVES**

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 4-6 weeks; max 1.5 gm/day
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml)

(strawberry)

Cipro XR Tab: 500, 1,000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

> norfloxacin (C) <18 years: not recommended; ≥18 years: 400 mg bid x 28 days Noroxin Tab: 400 mg

Comment: *norfloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

Comment: *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid x 10 days

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%) Comment: CrCl 15-30 mL/min: reduce dose by 1/2; CrCl <15 mL/min: not recommended.



### PROSTATITIS: CHRONIC

#### ANTI-INFECTIVES

- ► carbenicillin (B) <12 years: not recommended; ≥12 years: 1-2 tabs qid x 7-14 days Geocillin *Tab*: 382 mg
- ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 3 or more months; max 1.5 gm/day
  </p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

Comment: *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

Comment: *norfloxacin* contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

► trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid x 10 days

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%) Comment: CrCl 15-30 mL/min: reduce dose by 1/2; CrCl <15 mL/min: not recommended.

#### SUPPRESSION THERAPY

► trimethoprim/sulfamethoxazole (C)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%) Comment: CrCl 15-30 mL/min: reduce dose by 1/2; CrCl <15 mL/min: not recommended.

# PRURITUS

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms  $\it see~page~523$ 

Topical Corticosteroids see page 494 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Eucerin Products (OTC) Lac-Hydrin Products (OTC) Lubriderm Products (OTC)

### Aveeno Products (OTC)

### TOPICAL OIL

► fluocinolone acetamide 0.01% topical oil (C) <6 years: not recommended; ≥6 years: apply sparingly bid for up to 4 weeks

Derma-Smoothe/FS Topical Oil apply sparingly tid Topical oil: 0.01% (4 oz) (peanut oil)

### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0, 075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

**Comment**: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

Prudoxin Crm: 5% (45 gm)

Zonalon Crm: 5% (30, 45 gm)

pimecrolimus 1% cream (C) <2 years: not recommended; ≥2 years: apply to affected area bid; do not occlude
</p>

Elidel Crm: 1% (30, 60, 100 gm)

Comment: *pimecrolimus* is indicated for short-term and intermittent long-term use. Discontinue use when resolution occurs. Contraindicated if the patient is immunosuppressed. Change to the 0.1% preparation <u>or</u> if secondary bacterial infection is present.

► tacrolimus (C) <2 years: not recommended; 2-15 years: use 0.03% strength; apply to affected area bid; continue for 1 week after clearing; >15 years: apply to affected area bid; do not occlude or apply to wet skin; continue for 1 week after clearing

Protopic Oint: 0.03, 0.1% (30, 60, 100 gm)

trolamine salicylate (NE) <2 years: not recommended; ≥2 years: apply tid-qid prn
to intact skin
</p>

Mobisyl Crm: 10%

Comment: Provides some relief by 1-2 weeks; optimal benefit

# PSEUD0G0UT

Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488

## PSEUDOMEMBRANOUS COLITIS

Comment: Staphylococcal enterocolitis and antibiotic-associated pseudomembranous colitis caused by *C. difficile*.

### **ANTI-INFECTIVES**

- vancomycin (B, caps; C, susp)(G)40 mg/kg/day in 3-4 doses x 7-10 days; max 2 gm/day; ≥40 kg: 500 mg to 2 gm in 3-4 doses x 7-10 days; max 2 gm/day
- metronidazole (not for use in 1st; B in 2nd, 3rd)(G) 500 mg tid x 14 days

Flagyl *Tab*: 250\*, 500\*mg Flagyl 375 *Cap*: 375 mg

Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

### **PSITTACOSIS**

#### ANTI-INFECTIVES

▶ tetracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses x 7-14 days; see page 574 for dose by weight table; ≥8 years, >100 lb: 250 mg qid or 500 mg tid x 7-14 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids <u>or</u> calcium supplements <u>or</u> within two hours of another drug.

## PSORIASIS

Emollients see Dermatitis: Atopic page 102 Topical Corticosteroids see page 494

### VITAMIN D-3 DERIVATIVES

calcipotriene (C) <12 years: not recommended; ≥12 years: apply bid to lesions and gently rub in completely
</p>

Dovonex Crm: 0.005% (30, 120 gm)

### VITAMIN D-3 DERIVATIVE/CORTICOSTEROID COMBINATIONS

calcipotriene/betamethasone dipropionate (C)(G)

Enstilar <18 years: not recommended; ≥18 years: apply to affected area and gently rub in once daily x up to 4 weeks; limit treatment area to 30% of body surface area; do not occlude; do not use on face, axillae, groin, or atrophic skin; max 100 gm/week

Foam: calci 0.005%/beta 0.064% (60 gm spray can)

Taclonex <18 years: not recommended; ≥18 years: apply to affected area and gently rub in once daily as needed, up to 4 weeks

Taclonex Ointment <18 years: not recommended; ≥18 years: apply bid to lesions and gently rub in completely; limit treatment area to 30% of body surface area; do not occlude; do not use on face, axillae, groin, or atrophic skin; max 100 gm/week

Oint: calci 0.005%/beta 0.064% (60, 100 gm)

Taclonex Scalp Topical Suspension <18 years: not recommended; ≥18 years: apply to affected area and gently rub in once daily x 2 weeks or until cleared; max 8 weeks; limit treatment area to 30% of body surface area; do not occlude; do not use on face, axillae, groin, or atrophic skin; max 100 gm/week

Bottle: (30, 60 g; 120 gm [2 x 60 g])

Calcitriol (C) <18 years: not recommended; ≥18 years: apply bid to lesions and gently rub in completely; max weekly dose should not exceed 200 g</p>
Vectical Oint: 3 mcg/g (100 gm)

### **IMMUNOSUPPRESSANTS**

alefacept (B) <12 years: not recommended; ≥12 years: 7.5 mg IV bolus or 15 mg IM once weekly x 12 weeks; may retreat x 12 weeks</p>

Amevive IV dose pack: 7.5 mg single use (w. 10 ml sterile water diluents [use 0.6 ml]; 1, 4/pck); IM dose pack: 15 mg single use (w. 10 ml sterile water diluent [use 0.6 ml]; 1, 4/pck)

Comment: CD4+ and T-lymphocyte count should be checked prior to initiating treatment with *alefacept* and then monitored. Treatment should be withheld if CD4+ T-lymphocyte counts are below 250 cells/mcl.

cyclosporine (C) <18 years: not recommended; ≥18 years: 1.25 mg/kg bid; may increase after 4 weeks by 0.5 mg/kg/day; then adjust at 2-week intervals; max 4 mg/kg/day; administer with meals
</p>

Neoral Cap: 25, 100 mg (alcohol)

Neoral Oral Solution *Oral soln*: 100 mg/ml (50 ml) may dilute in room temperature apple juice or orange juice (alcohol)

### ANTIMITOTICS

anthralin (C) <12 years: not recommended; ≥12 years: apply once daily Zithranol-RR Crm: 1.2% (15, 45 gm)
</p>

#### RETINOIDS

acitretin (X)(G) <12 years: not recommended; ≥12 years: 25-50 mg once daily with main meal

Soriatane Cap: 10, 25 mg

ightharpoonup tazarotene (X)(G) <12 years: not recommended;  $\geq$ 12 years: apply once daily at HS

Avage Cream Crm: 0.1% (30 gm)

Tazorac Cream Crm: 0.05, 0.1% (15, 30, 60 gm)

Tazorac Gel Gel: 0.05, 0.1% (30, 100 gm)

### COAL TAR PREPARATIONS

coal tar (C)(G)

Scytera (OTC) apply qd-qid; use lowest effective dose

Foam: 2%

T/Gel Shampoo Extra Strength (OTC) use every other day; max 4 x/week; massage into affected areas for 5 minutes; rinse; repeat

assage into affected areas for 5 minutes; rinse; repea Shampoo: 1%

T/Gel Shampoo Original Formula (OTC) use every other day; max 7 x/week; massage into affected areas for 5 minutes; rinse; repeat

Shampoo: 0.5%

T/Gel Shampoo Stubborn Itch Control (OTC) use every other day; max 7 x/ week; massage into affected areas for 5 minutes; rinse; repeat Shampoo: 0.5%

#### INTERLEUKIN-17A ANTAGONIST

> secukinumab (B) <18 years: not recommended; ≥18 years: inject SC into the upper arm, abdomen, or thigh; rotate sites; administer 300 mg SC (as two separate 150 mg SC injections) at weeks 0, 1, 2, 3, and 4; then 300 mg every 4 weeks; for some patients, 150 mg/dose may be sufficient</p>

**Cosentyx** *Vial:* 150 mg/ml pwdr for SC inj after reconstitution single use (preservative-free)

Comment: Cosentyx may be used as monotherapy or in combination with *methotrexate* (MTX).

#### INTERLEUKIN-12/INTERLEUKIN-23 ANTAGONIST

wstekinumab (B) <18 years: not recommended; ≥18 years: inject SC; rotate sites; <100 kg: 45 mg once; then 4 weeks later; then every 12 weeks; ≥100 kg: 90 mg once; then 4 weeks later; then every 12 weeks</p>

Stelara Vial: 45 mg/0.5 ml single use (preservative-free)

Comment: Stelara may be used as monotherapy or in combination with *methotrexate* (MTX).

### TUMOR NECROSIS FACTOR (TNF) BLOCKERS

etanercept (B) <18 years: not recommended; ≥18 years: inject SC into thigh, abdomen, or upper arm; rotate sites; initially 50 mg twice weekly (3-4 days apart) for 3 months; then 50 mg/week maintenance or 25 mg or 50 mg per week for 3 months; then 50 mg/week maintenance</p>

Enbrel Vial: 25 mg pwdr for SC injection after reconstitution (4/carton w. supplies) (preservative-free, diluent contains benzyl alcohol); Prefilled syringe: 50 mg/ml (preservative-free); SureClick Autoinjector: 25 mg/ml (preservative-free)

adalimumab (B) <18 years: not recommended; ≥18 years: initially 80 mg SC once followed by 40 mg once every other week starting one week after initial dose; inject into thigh or abdomen; rotate sites</p>

Humira Prefilled syringe: 20 mg/0.4 ml; 40 mg/0.8 ml single dose (2/pck; 2, 6/ starter pck) (preservative-free)

> *golimumab* (B) <18 years: not established; ≥18 years: administer SC or IV infusion (in combination with *methotrexate* [MTX])

Simponi 50 mg SC once monthly; rotate sites

Prefilled syringe, SmartJect Autoinjector: 50 mg/0.5 ml, single use (preservative-free)

Simponi Aria 2 mg/kg IV infusion week 0 and week 4; then every 8 weeks

Vial: 50 mg/4 ml, single-use, soln for IV infusion after dilution (latex-free, preservative-free)

infliximab (B) <6 years: not recommended; ≥6 years: administer by IV infusion over 2 hours; 5 mg/kg weeks 0, 2, 6; then once every 8 weeks

Remicade Vial: 100 mg pwdr for reconstitution for IV infusion (preservative-free)

#### MOISTURIZING AGENTS

Aquaphor Healing Ointment (OTC) Oint: (1.75, 3.5, 14 oz) (alcohol)

Eucerin Daily Sun Defense (OTC) Lotn: 6 oz (fragrance-free)

Comment: Eucerin Daily Sun Defense is a moisturizer with SPF 15.

Eucerin Facial Lotion (OTC) Lotn: 4 oz

Eucerin Light Lotion (OTC) Lotn: 8 oz

Eucerin Lotion (OTC) Lotn: 8, 16 oz

Eucerin Original Creme (OTC) Crm: 2, 4, 16 oz (alcohol)

Eucerin Plus Creme Crm: 4 oz

Eucerin Plus Lotion (OTC) Lotn: 6, 12 oz.

Eucerin Protective Lotion (OTC) Lotn: 4 oz (alcohol)

Comment: Eucerin Protective Lotion is a moisturizer with SPF 25.

Lac-Hydrin Cream (OTC) Crm: 280, 385 g

Lac-Hydrin Lotion (OTC) Lotn: 225, 400 g

Lubriderm Dry Skin Scented (OTC) Lotn: 6, 10, 16, 32 oz

Lubriderm Dry Skin Unscented (OTC) Lotn: 3.3, 6, 10, 16 oz (fragrance-free)

Lubriderm Sensitive Skin Lotion (OTC) *Lotn*: 3.3, 6, 10, 16 oz (lanolin-free)

Lubriderm Dry Skin (OTC) Lotn (scented): 2.5, 6, 10, 16 oz; Lotn (fragrance-free): 1, 2.5, 6, 10, 16 oz

**Lubriderm Bath** 1-2 capfuls in bath <u>or</u> rub onto wet skin as needed; then rinse *Oil:* 8 oz



### **PSORIATIC ARTHRITIS**

Oral Prescription NSAIDs see page 490

Other Oral Analgesics see Pain page 298

Topical/Transdermal NSAIDs see Pain page 298

Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498

Topical Analgesic and Anesthetic Agents see page 488

#### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0, 075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

*b* diclofenac sodium (C; D ≥30 wks)

Pennsaid 1.5% <12 years: not established; ≥12 years: in 10 drop increments, dispense and rub into front, side, and back of knee: usually; 40 drops (40 mg) qid

\*Topical soln: 1.5% (150 ml)

Pennsaid 2% <12 years: not established; ≥12 years: apply 2 pump actuations (40 mg) and rub into front, side, and back of knee bid

Topical soln: 2% (20 mg/pump actuation, 112 gm)

Comment: Pennsaid is indicated for the treatment of pain associated with osteoarthritis of the knee.

Solaraze Gel Gel: 3% (50 gm) (benzyl alcohol)

Comment: Contraindicated with aspirin allergy. As with other NSAIDs,

Solaraze Gel should be avoided in late pregnancy (≥30 weeks) because it may cause premature closure of the ductus arteriosus.

**Voltaren Gel (G)** <12 years: not established;  $\geq$ 12 years: apply sparingly and rub in

Gel: 1% (100 gm)

Comment: Contraindicated with aspirin allergy. As with other NSAIDs,

Voltaren Gel should be avoided in late pregnancy (≥30 weeks) because it may cause premature closure of the ductus arteriosus.

trolamine salicylate (NE) <2 years: not recommended; ≥2 years: apply tid-qid
 Mobisvl Crm: 10%
</p>

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks.

### **ORAL SALICYLATE**

indomethacin (C) <14 years: usually not recommended; >2 years, if risk warranted: 1-2 mg/kg/day in divided doses; max 3-4 mg/kg/day or 150-200 mg/day, whichever is less; <14 years, ER cap not recommended; ≥14 years: initially 25 mg bid-tid, increase as needed at weekly intervals by 25-50 mg/day; max 200 mg/day

Cap: 25, 50 mg; Susp; 25 mg/5 ml (pineapple-coconut, mint; alcohol 1%); Supp: 50 mg; ER Cap: 75 mg ext-rel

Comment: *indomethacin* is indicated only for acute painful flares. Administer with food <u>and/or</u> antacids. Use lowest effective dose for shortest duration.

#### **ORAL NSAIDs**

See more Oral NSAIDs page 490

*▶* diclofenac sodium (C)

Voltaren <12 years: not established; ≥12 years: 50 mg bid-qid or 75 mg bid or 25 mg qid with an additional 25 mg at HS if necessary

Tab: 25, 50, 75 mg ent-coat

Voltaren XR <18 years: not established; ≥18 years: 100 mg once daily; rarely,

100 mg bid may be used *Tab*: 100 mg ext-rel

### **NSAID PLUS PPI**

esomeprazole/naproxen (C; not for use in 3rd)(G) <18 years: not recommended;
 ≥18 years: 1 tab bid; use lowest effective dose for the shortest duration; swallow
 whole; take at least 30 minutes before a meal
</p>

Vimovo *Tab: nap* 375 mg/eso 20 mg ext-rel; *nap* 500 mg/eso 20 mg ext-rel Comment: Vimovo is indicated to improve signs/symptoms, and risk of gastric ulcer in patients at risk of developing NSAID-associated gastric ulcer.

### **COX-2 INHIBITORS**

Comment: Cox-2 inhibitors are contraindicated with history of asthma, urticaria, and allergic-type reactions to *aspirin*, other NSAIDs, and sulfonamides, 3rd trimester of pregnancy, and coronary artery bypass graft (CABG) surgery.

celecoxib (C)(G) <18 years: not recommended; ≥18 years: 50-400 mg qd-bid; max 800 mg/day</p>

Celebrex Cap: 50, 100, 200, 400 mg

► meloxicam (C)(G)

Mobic <2 years, <60 kg: not recommended; ≥2, >60 kg: 0.125 mg/kg; max 7.5 mg once daily; ≥18 years: initially 7.5 mg once daily; max 15 mg once daily; Hemodialysis: max 7.5 mg/day

*Tab*: 7.5, 15 mg; *Oral susp*: 7.5 mg/5 ml (100 ml) (raspberry)

Vivlodex <18 years: not established; ≥18 years: initially 5 mg qd; may increase to max 10 mg/day; Hemodialysis: max 5 mg/day

Cap: 5, 10 mg

### PHOSPHODIESTERASE 4 (PDE4) INHIBITOR

papremilast (C) <18 years: not established; ≥18 years: swallow whole; initial titration over 5 days; maintenance 30 mg bid; Day 1: 10 mg in AM; Day 2: 10 mg AM and 10 mg PM; Day 3: 10 mg AM and 20 mg PM; Day 4: 20 mg AM and 20 mg PM; Day 5: 20 mg AM and 30 mg PM; Day 6 and ongoing: 30 mg AM and 30 mg PM</p>

Otezla Tab: 10, 20, 30 mg; 2-Week Starter Pack

Comment: Register pregnant patients exposed to by calling 877-311-8972.

### INTERLEUKIN-12/INTERLEUKIN-23 ANTAGONIST

wstekinumab (B) <18 years: not established; ≥18 years: inject SC; rotate sites; <100 kg: 45 mg once; then 4 weeks later; then every 12 weeks; ≥100 kg: 90 mg once; then 4 weeks later; then every 12 weeks

Stelara Vial: 45 mg/0.5 ml single use (preservative-free)

Comment: Stelara may be used as monotherapy or in combination with *methotrexate* (MTX).

#### TUMOR NECROSIS FACTOR (TNF) BLOCKERS

adalimumab (B) <2 years, <10 kg: not recommended; 10-<15 kg: 10 mg every other week; 15-<30 kg: 20 mg every other week; ≥30-40 kg: 40 mg every other week; >40 kg 40 mg SC once every other week; may increase to once weekly without methotrexate (MTX); administer in abdomen or thigh; rotate sites; 2-17 years, supervise first dose

Humira Prefilled syringe: 20 mg/0.4 ml; 40 mg/0.8 ml single dose (2/pck; 2, 6/ starter pck) (preservative-free)

Comment: Humira may use with *methotrexate* (MTX), DMARDs, corticoids, salicylates, NSAIDs, <u>or</u> analgesics.

etanercept (B) <4 years: not recommended; 4-17 years: 0.4 mg/kg SC twice weekly, 72-96 hours apart (max 25 mg/dose) or 0.8 mg/kg SC weekly (max 50 mg/dose); >17 years: 25 mg SC twice weekly, 72-96 hours apart or 50 mg SC weekly; rotate sites

Enbrel Vial: 25 mg pwdr for SC injection after reconstitution (4/carton w. supplies) (preservative-free; diluent contains benzyl alcohol); Prefilled syringe: 50 mg/ml (preservative-free); SureClick Autoinjector: 25 mg/ml (preservative-free)

**Comment:** *etanercept* reduces pain, morning stiffness, and swelling. May be administered in combination with *methotrexate*. Live vaccines should not be administered concurrently. Do not administer with active infection.

polimumab (B) <18 years: not established; ≥18 years: administer SC or IV infusion (in combination with methotrexate [MTX])
</p>

Simponi 50 mg SC once monthly; rotate sites

Prefilled syringe, SmartJect Autoinjector: 50 mg/0.5 ml, single use (preservative-free)

Simponi Aria 2 mg/kg IV infusion week 0 and week 4; then every 8 weeks thereafter

 $\it Vial: 50~mg/4~ml, single-use, soln for IV infusion after dilution (latex-free, preservative-free)$ 

**Comment**: Corticosteroids, non-biologic DMARDs, <u>and/or</u> NSAIDs may be continued during treatment with *golimumab*.

infliximab (B) <18 years: not established; ≥18 years: administer SC or IV infusion (in combination with methotrexate [MTX]) administer by IV infusion over at least 2 hours; 5 mg/kg once weekly at weeks 0, 2, 6, and then every 8 weeks

Remicade *Vial*: 100 mg pwdr for reconstitution and dilution; (preservative-free)



# PULMONARY ARTERIAL HYPERTENSION (PAH; WHO GROUP I)

#### PROSTACYCLIN RECEPTOR AGONIST

Selexipag (X) <12 years: not established; ≥12 years: initially 200 mcg bid; increase by 200 mcg bid to highest tolerated dose up to 1600 mcg bid; Moderate hepatic impairment (Child-Pugh B): initially 200 mcg once daily; increase by 200 mcg once daily at weekly intervals as tolerated; swallow whole; may take with food to improve tolerability</p>

#### Uptravi

*Tab*: 200, 400, 600, 800, 1000, 1200, 1400, 1600 mcg; *Titration pck*: 140 x 200 mcg + 60 x 800 mcg)

Comment: Discontinue Uptravi if pulmonary veno-occlusive disease is confirmed or severe hepatic impairment (Child-Pugh C). May be potentiated by concomitant strong CYP2C8 inhibitors (e.g., gemfibrozil); *Nursing mothers*: not recommended. Discontinue breastfeeding or discontinue the drug.

#### **GUANYLATE CYCLASE STIMULATOR**

riociguat (X) <12 years: not established; ≥12 years: initially 0.5-1 mg tid; titrate every 2 weeks as tolerated (SBP ≥95 and absence of hypotensive symptoms) to highest tolerated dose; max 2.5 mg tid
</p>

Adempas Tab: 0.5, 1, 1.5, 2, 2.5 mg

Comment: If Adempas is interrupted for ≥3 days, retitrate. Consider titrating to dosage higher than 2.5 mg tid, if tolerated, in patients who smoke. Consider a starting dose of 0.5 mg tid when initiating Adempas in patients receiving strong cytochrome P450 (CYP) and P-glycoprotein/breast cancer resistance protein (P-gp/BCRP) inhibitors such as azole antimycotics (e.g., ketoconazole, itraconazole) or HIV protease inhibitors (e.g., ritonavir). Monitor for signs and symptoms of hypotension with strong CYP and P-gp/BCRP inhibitors. Obtain pregnancy tests prior to initiation and monthly during treatment. Adempas has consistently shown to have teratogenic effects when administered to animals. Females can only receive Adempas through the Adempas Risk Evaluation and Mitigation Strategy (REMS) Program, a restricted distribution program: www. Adempas REMS.com or 855-4 ADEMPAS. It is not known if Adempas is present in human milk; however, *riociguat* or its metabolites were present in the milk of rats. Because of the potential for serious adverse reactions in nursing infants from *riociguat*, discontinue nursing or Adempas. In placebo-controlled clinical trials, serious bleeding has occurred (including hemoptysis, hematemesis, vaginal hemorrhage, catheter site hemorrhage, subdural hematoma, and intraabdominal hemorrhage. Safety and efficacy have not been demonstrated in patients with creatinine clearance <15 mL/min or on dialysis or severe hepatic impairment (Child-Pugh C).

Endothelin Receptor Antagonist, Selective for the Endothelin Type-A (ETA) Receptor

ambrisentan (X) <12 years: not established; ≥12 years: 20 mg once daily; at 4-week intervals, either the dose of Letairis initially 5 mg once daily, with or without or tadalafil can be increased, as needed and tolerated, to Letairis 10 mg or tadalafil 40 mg; do not split, crush, or chew.
</p>

Letairis Tab: 5, 10 mg film-coat

Comment: In patients with PAH, plasma ET-1 concentrations are increased as much as 10-fold and correlate with increased mean right atrial pressure and disease severity. ET-1 and ET-1 mRNA concentrations are increased as much as 9-fold in the lung tissue of patients with PAH, primarily in the endothelium of pulmonary arteries. These findings suggest that ET-1 may play a critical role in the pathogenesis and progression of PAH. When taken with *tadalafil*, Letairis is indicated to reduce the risk of disease progression and hospitalization, to reduce the risk of hospitalization due to worsening PAH, and to improve exercise tolerance. Letairis is contraindicated in idiopathic pulmonary fibrosis (IPF).

Exclude pregnancy before the initiation of treatment with Letairis. Females of reproductive potential must use acceptable methods of contraception during treatment with Letairis and for one month after treatment. Obtain monthly pregnancy tests during treatment and 1 month after discontinuation of treatment. Females can only receive Letairis through the Letairis Risk Evaluation and Mitigation Strategy (REMS) Program, a restricted distribution program, because of the risk of embryo-fetal toxicity: www. Letairisrems.com or 1-866-664-5327.

# PHOSPHODIESTERASE TYPE 5 (PDE5) INHIBITORS, CGMP-SPECIFIC DRUGS

Sildenafil citrate (B)(G) <12 years: not established; ≥12 years: Orally: initially 5 or 20 mg tid, 4-6 hours apart; max 20 mg tid; IV bolus: 2.5 mg or 10 mg bolus injection tid, 4-6 hours apart; max 10 mg tid; the dose does not need to be adjusted for body weight.</p>

**Revatio** *Tab*: 20 mg film-coat; *Oral susp*: 10 mg/ml pwdr for reconstitution (1.12) g, 112 ml) (grape) (sorbitol); Vial: 10 mg/12.5 ml (0.8 mg/ml) Comment: A 10 mg IV dose is predicted to provide pharmacological effect equivalent to the 20 mg oral dose. Revatio is contraindicated with concomitant nitrate drugs including *nitroglycerin*, *isosorbide dinitrate*, isosorbide mononitrate, and some recreational drugs such as "poppers." Taking Revatio with a nitrate can cause a sudden and serious decrease in blood pressure. Revatio is contraindicated with concomitant guanvlate cyclase stimulator drugs such as riociguat (Adempas). Avoid the use of grapefruit products while taking Revatio. Stop Revatio and get emergency medical help if sudden vision loss. Revatio is contraindicated with other phosphodiesterase type 5 (PDE5) Inhibitors, cGMP-specific drugs such as avanafil (Stendra), tadalafil (Cialis), or vardenafil (Levitra). Caution with history of recent MI, stroke, life-threatening arrhythmia, hypotension, hypertension, cardiac failure, unstable angina, retinitis pigmentosa, CYP3A4 inhibitors (e.g., *cimetidine*, the azoles, *ervthromycin*, protease inhibitors (e.g., ritonavir), CYP3A4 inducers (e.g., rifampin, carbamazepine, phenytoin, phenobarbital), alcohol, and antihypertensive agents. Side effects include headache, flushing, nasal congestion, rhinitis, dyspepsia, and diarrhea. Use **Revatio** with caution in patients with anatomical deformation of the penis (e.g., angulation, cavernosal fibrosis, or Peyronie's disease) or in patients who have conditions, which may predispose them to priapism (e.g., sickle cell anemia, multiple myeloma, or leukemia). In the event of an erection that persists longer than 4 hours, the patient should seek immediate medical assistance. If priapism (painful erection greater than 6 hours in duration) is not treated immediately, penile tissue damage and permanent loss of potency could result.

tadalafil (B)(G) <12 years: not established; ≥12 years: 40 mg once daily; CrCl 31-80 mL/min: initially 20 mg once daily; increase to 40 mg once daily if tolerated; CrCl <30 mL/min: not recommended; Mild or moderate hepatic cirrhosis (Child Pugh Class A or B): initially 20 mg once daily; Severe hepatic cirrhosis (Child Pugh Class C): not recommended; use with ritonavir; Receiving ritonavir for at least 1 week: initiate tadalafil at 20 mg once daily; may increase to 40 mg once daily if tolerated; Already on tadalafil: stop tadalafil at least 24 hours prior to initiating ritonavir; resume tadalafil at 20 mg once daily after at least 1 week; may increase to 40 mg once daily if tolerated
</p>

Adcirca Tab: 20 mg

Comment: Contraindicated with concomitant organic nitrates and guanylate cyclase stimulators (e.g., *riociguat*).

b treprostinil (B) <12 years: not established; ≥12 years: swallow whole; take with food Orenitram Tab: 0.125, 0.25, 1, 2.5 mg ext-rel</p>

**Comment:** Orenitram is indicated to improve exercise capacity. It is contraindicated with severe hepatic impairment (Child-Pugh C). Orenitram inhibits platelet aggregation and increases the risk of bleeding. Concomitant administration of **Orenitram** with diuretics, antihypertensive agents, <u>or</u> other vasodilators increases the risk of symptomatic hypotension.



### **PYELONEPHRITIS: ACUTE**

#### **URINARY TRACT ANALGESIA**

phenazopyridine (B)(G) <12 years: not recommended; ≥12 years: 95-200 mg q 6 hours prn; max 2 days

AZO Standard, Prodium, Uristat (OTC) *Tab*: 95 mg AZO Standard Maximum Strength (OTC) *Tab*: 97.5 mg Pyridium, Urogesic *Tab*: 100, 200 mg

#### **OUTPATIENT ANTI-INFECTIVE TREATMENT**

Comment: Acute pyelonephritis can be treated with a single IM antibiotic administration followed by a PO antibiotic regimen and close follow up. Example: Rocephin 1 gm IM followed by Bactrim DS, cephalexin, ciprofloxacin, levofloxacin, or loracarbef.

cephalexin (B)(G) 25-50 mg/kg/day in 4 divided doses x 10-14 days; see page 557 for dose by weight table; 1-4 gm/day in 4 divided doses x 10-14 days

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid or 1000 mg XR once daily x 3-14 days; max 1.5 gm/day

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

▶ levofloxacin (C) <18 years: not recommended; ≥18 years: Uncomplicated: 500 mg once daily x 10 days; Complicated: 750 mg once daily x 10 days</p>

**Levaquin** *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol); *Inj conc*: 25 mg/ml for IV infusion after dilution for IV infusion (50, 100, 150 ml) (preservative-free)

Comment: *levofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 10 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 10 days</p>

**Lorabid** Pulvule: 200, 400 mg; Oral susp: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

► trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of sulfamethoxazole in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

## **RABIES**

### PRE-EXPOSURE PROPHYLAXIS

Comment: Postpone pre-exposure prophylaxis during acute febrile illness or infection. Have epinephrine 1:1000 readily available.

rabies immune globulin, human (HRIG) (C) 3 injections of 1 ml IM each on day 0, 7, and either day 21 or 28; booster doses 1 ml IM every 2 years; for infants, administer in the vastus lateralis muscle

Imovax Vial: 2.5 u/ml (1 ml, single dose)

#### POSTEXPOSIIRE PROPHYLAXIS

**Comment**: Have *epinephrine* 1:1000 readily available.

rabies immune globulin, human (HRIG) (C) 20 IU/kg infiltrated into wound area as much as feasible, then remaining dose administered IM at site remote from vaccine administration

BayRab, Imogam Rabies Vial: 150 IU/ml (2, 10 ml)

rabies vaccine, human diploid cell (C) Not previously immunized: administer first dose 1 ml in the deltoid as soon as possible after exposure; then repeat on days 3, 7, 14, 28 or 30, and 90; administer 1st dose with rabies immune globulin; *Previously* immunized: only 2 doses are administered, immediately after exposure and again 3 days later; no rabies immune globulin is needed; for infants, administer in the vastus lateralis muscle

Imovax, RabAvert Vial: 2.5 IU/ml (2.5 IU of freeze-dried vaccine w. diluent)

#### TETANUS PROPHYLAXIS

See Tetanus page 398 for patients not previously immunized

### **RESPIRATORY SYNCYTIAL VIRUS (RSV)**

#### **PROPHYLAXIS**

▶ *palivizumab* 15 mg/kg IM administered monthly throughout the RSV season Synagis Vial: 100 mg/ml

Treatment see Bronchiolitis page 54

### **RETINITIS: CYTOMEGALOVIRUS (CMV)**

Comment: *cidofovir and valganciclovir* are nucleoside analogs and prodrugs of *ganciclovir* indicated for the treatment of AIDS-related *cytomegalovirus* (CMV) retinitis and prevention of CMV disease in patients ≥18 years with kidney, heart, and kidney-pancreas transplant patients at high risk, and for prevention of CMV disease in pediatric kidney and heart transplant patients at high risk.

cidofovir (C) <12 years: not recommended; ≥12 years: administer via IV infusion over 1 hour; pretreat with oral probenecid (2 g, 3 hours prior to starting the cidofovir infusion and 1 g, 2 and 8 hours after the infusion is ended) and 1 liter of IV NaCl should be infused immediately before each dose of cidofovir (a 2nd liter of NaCl should also be infused either during or after each dose of cidofovir if a fluid load is tolerable); Induction: 5 mg/kg once weekly for 2 consecutive weeks; Maintenance: 5 mg/kg once every 2 weeks; reduce to 3 mg/kg if serum Cr increases 0.3-0.4 mg/dL above baseline; discontinue if serum Cr increases to >0.5 mg/dL above baseline or if >3+ proteinuria develops

Vistide Vial: 75 mg/ml (5 ml) (preservative-free)

Comment: *cidofovir* is a nucleoside analog indicated for treatment of AIDS-related *cytomegalovirus* (CMV) retinitis.

valganciclovir (C)(G) take with food; <4 months: not recommended; 4 months-16 years: see mfr pkg insert for dosing calculation equation; >16 years: Induction: 900 mg bid x 21 days; Maintenance: 900 mg daily; CrCl <60 mL/min: reduce dose (see mfr pkg insert; hemodialysis or CrCl <10 mL/min not recommended (use ganciclovir)
</p>

Valcyte Tab: 450 mg (preservative-free); Oral pwdr for reconstitution: 50 mg/ml (tutti-frutti)



### **RHEUMATOID ARTHRITIS (RA)**

Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488

#### TOPICAL ANALGESICS

capsaicin cream (B)(G) <2 years: not recommended; 2-12 years: apply sparingly to intact skin bid prn; >12 years: apply tid-qid prn

Axsain Crm: 0.075% (1, 2 oz)

Capsin (OTC) Lotn: 0.025, 0, 075% (59 ml)

Capzasin-P (OTC) Crm: 0.025% (1.5 oz); Lotn: 0.025% (2 oz)

Capzasin-HP (OTC) Crm: 0.075% (1.5 oz); Lotn: 0.075% (2 oz)

Dolorac Crm: 0.025% (28 gm)

Double Cap (OTC) Crm: 0.05% (2 oz)

R-Gel Gel: 0.025% (15, 30 gm)

Zostrix (OTC) Crm: 0.025% (0.7, 1.5, 3 oz)

Zostrix HP (OTC) Emol crm: 0.075% (1, 2 oz)

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks. Avoid contact with mucous membranes.

trolamine salicylate (NE) <2 years: not recommended; ≥2 years: apply tid-qid prn
to intact skin
</p>

Mobisvl Crm: 10%

Comment: Provides some relief by 1-2 weeks; optimal benefit may take 4-6 weeks.

#### **ORAL SALICYLATE**

indomethacin (C) <14 years: usually not recommended; >2 years, if risk warranted: 1-2 mg/kg/day in divided doses; max 3-4 mg/kg/day (or 150-200 mg/day, whichever is less); <14 years, ER cap not recommended; ≥14 years: initially 25 mg bid-tid, increase as needed at weekly intervals by 25-50 mg/day; max 200 mg/day</p>

Cap: 25, 50 mg; Susp; 25 mg/5 ml (pineapple-coconut, mint; alcohol 1%); Supp: 50 mg; ER Cap: 75 mg ext-rel

Comment: *indomethacin* is indicated only for acute painful flares. Administer with food and/or antacids. Use lowest effective dose for shortest duration.

#### NSAID

See more Oral NSAIDs page 490

*▶* diclofenac sodium (C)(G)

Voltaren <12 not recommended;  $\geq$ 12 years: 50 mg bid-qid or 75 mg bid or 25 mg qid with an additional 25 mg at HS if necessary

Tab: 25, 50, 75 mg ent-coat

Voltaren XR <18: not recommended; ≥18 years: 100 mg once daily; rarely, 100 mg bid may be used

Tab: 100 mg ext-rel

#### **NSAID PLUS PPI**

**Vimovo** *Tab: nap* 375 mg/eso 20 mg ext-rel; *nap* 500 mg/eso 20 mg ext-rel **Comment: Vimovo** is indicated to improve signs/symptoms, and risk of gastric ulcer in patients at risk of developing NSAID-associated gastric ulcer.

#### COX-2 INHIBITORS

Comment: Cox-2 inhibitors are contraindicated with history of asthma, urticaria, and allergic-type reactions to *aspirin*, other NSAIDs, and sulfonamides, 3rd trimester of pregnancy, and coronary artery bypass graft (CABG) surgery.

celecoxib (C)(G) <18 years: not recommended; ≥18 years: 100-400 mg bid; max 800 mg/day</p>

Celebrex Cap: 50, 100, 200, 400 mg

≥ meloxicam (C)(G)

Mobic <2 years, <60 kg: not recommended; ≥2, >60 kg: 0.125 mg/kg; max 7.5 mg once daily; ≥18 years: initially 7.5 mg once daily; max 15 mg once daily; Hemodialysis: max 7.5 mg/day

*Tab*: 7.5, 15 mg; *Oral susp*: 7.5 mg/5 ml (100 ml) (raspberry) **Vivlodex** <18 years: not established; ≥18 years: initially 5 mg qd; may increase to max 10 mg/day; *Hemodialysis*: max 5 mg/day *Cap*: 5, 10 mg

#### JANUS KINASE (JAK) INHIBITOR

tofacitinib (C) <12 years: not established; ≥12 years: 5 mg twice daily; reduce to
 5 mg once daily for moderate-to-severe renal impairment or moderate hepatic
 impairment, concomitant potent CYP3A4 inhibitors, or drugs that result in both
 CYP3A4 and potent CYP2C19 inhibition
</p>

Xeljanz Tab: 5 mg

Xeljanz XR Tab: 11 mg ext-rel

Comment: Xeljanz is indicated for moderate-to-severe RA as monotherapy in patients who have inadequate response <u>or</u> intolerance to *methotrexate* (MTX) <u>and/or</u> in combination with other non-biologic DMARDs.

### DISEASE MODIFYING ANTIRHEUMATIC DRUGS (DMARDs)

Comment: DMARDs are first-line treatment options for RA. DMARDs include penicillamine, gold salts (*auranofin, aurothio-glucose*), immunosuppressants, and *hydroxychloroquine*. The DMARDs reduce ESR, reduce RF, and favorably affect the outcome of RA. Immunosuppressants may require 6 weeks to affect benefits and 6 months for full improvement.

auranofin (gold salt) (C) <12 years: not recommended; ≥12 years: 3 mg bid or 6 mg once daily; if inadequate response after 6 months, increase to 3 mg tid</p>

Ridaura Vial: 100 mg/20 ml

azathioprine (D) <12 years: not established; ≥12 years: 1 mg/kg/day in a single or divided doses; may increase by 0.5 mg/kg/day q 4 weeks; max 2.5 mg/kg/day; minimum trial to ascertain effectiveness is 12 weeks

Azasan Tab 75\*, 100\*mg

Imuran Tab 50\*mg

cyclosporine (immunosuppressant) (C) <12 years: not recommended; ≥12 years:
 1.25 mg/kg bid; may increase after 4 weeks by 0.5 mg/kg/day; then adjust at 2 week
 intervals; max 4 mg/kg/day; administer with meals
</p>

Neoral Cap: 25, 100 mg (alcohol)

Neoral Oral Solution Oral soln: 100 mg/ml (50 ml) may dilute in room temperature apple juice or orange juice (alcohol)

Comment: Neoral is indicated for RA unresponsive to methotrexate (MTX).

hydroxychloroquine (C) <12 years: not recommended; ≥12 years: 400-600 mg/day Plaquenil Tab: 200 mg

Comment: May require several weeks to achieve beneficial effects. If no improvement in 6 months, discontinue.

▶ leflunomide (X)(G) <18 years: not recommended; ≥18 years: initially 100 mg once daily x 3 days; maintenance dose 20 mg once daily; max 20 mg daily</p>

Arava Tab: 10, 20, 100 mg

Comment: Arava is contraindicated with breastfeeding.

methotrexate (X) <2 years: not recommended; ≥2 years-12 years: 10 mg/m² once weekly; max 20 mg/m²; >12 years: 7.5 mg x 1 dose per week or 2.5 mg x 3 at 12 hour intervals once a week; max 20 mg/week; therapeutic response begins in 3-6 weeks; administer methotrexate injection SC only into the abdomen or thigh

**Rasuvo** *Autoinjector*: 7.5 mg/0.15 ml, 10 mg/0.20 ml, 12.5 mg/0.25 ml, 15 mg/0.30 ml, 17.5 mg/0.35 ml, 20 mg/0.40 ml, 22.5 mg/0.45 ml, 25 mg/0.50 ml, 27.5 mg/0.55 ml, 30 mg/0.60 ml (solution concentration for SC injection is 50 mg/ml)

Rheumatrex *Tab*: 2.5\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit-of-use dose pack)

Trexall *Tab*: 5\*, 7.5\*, 10\*, 15\*mg (5, 7.5, 10, 12.5, 15 mg/week, 4/card unit-of-use dose pack)

Comment: *methotrexate* (MTX) is contraindicated with immunodeficiency, blood dyscrasias, alcoholism, and chronic liver disease.

Penicillamine (D) <12 years: not recommended; ≥12 years: 125-250 mg once daily initially; may increase by 125-250 mg/day q 1-3 months; max 1.5 gm/day
</p>

Cuprimine Cap: 125, 250 mg

Depen Tab: 250 mg

➤ sulfasalazine (C; D in 2nd, 3rd)(G) <6 years: not recommended; 6-16 years: initially 1/4 to 1/3 of maintenance dose; increase weekly; maintenance 30-50 mg/kg/day in 2 divided doses at regular intervals; max 2 gm/day; >16 years: initially 0.5 gm once daily bid; gradually increase every 4 days; usual maintenance 2-3 gm/day in equally divided doses at regular intervals; max 4 gm/day

Azulfidine Tab: 500 mg

Azulfidine EN Tab: 500 mg ent-coat

### TUMOR NECROSIS FACTOR (TNF) BLOCKERS

adalimumab (B) <2 years, <10 kg: not recommended; ≥2 years: 10-<15 kg: 10 mg every other week; 15-<30 kg: 20 mg every other week; ≥30 kg: 40 mg SC every other week; ≥17 years: may increase to once weekly without methotrexate (MTX); administer in abdomen or thigh; rotate sites; 2-17 years, supervise first dose</p>

Humira Prefilled syringe: 20 mg/0.4 ml; 40 mg/0.8 ml single dose (2/pck; 2, 6/starter pck) (preservative-free)

Comment: Humira may use with *methotrexate* (MTX), DMARDs, corticosteroids, salicylates, NSAIDs, or analgesics.

certolizumab pegol (B) <12 years: not recommended; ≥12 years: 400 mg SC on Day 1, at week 2, and at week 4; then 200 give for other week; rotate sites
</p>

Cimzia Vial: 200 mg single dose w. supplies (2/pck, 2, 6/starter pck); Prefilled syringe: 200 mg single dose w. supplies (2/pck, 2, 6/starter pck) (preservative-free)

etanercept (B) <4 years: not recommended; 4-<17 years: 0.4 mg/kg SC twice weekly, 72-96 hours apart (max 25 mg/dose) or 0.8 mg/kg SC weekly (max 50 mg/dose); ≥17 years: 25 mg SC twice weekly, 72-96 hours apart or 50 mg SC weekly; rotate sites</p>

Enbrel Vial: 25 mg pwdr for SC injection after reconstitution (4/carton w. supplies) (preservative-free; diluent contains benzyl alcohol); Prefilled syringe: 50 mg/ml (preservative-free); SureClick Autoinjector: 50 mg/ml (preservative-free)

Comment: *etanercept* reduces pain, morning stiffness, and swelling. May be administered in combination with *methotrexate*. Live vaccines should not be administered concurrently. Do not administer with active infection.

polimumab (B) <18 years: not recommended; ≥18 years: administer SC or IV infusion (in combination with methotrexate [MTX])
</p>

Simponi 50 mg SC once monthly; rotate sites

Prefilled syringe, SmartJect Autoinjector: 50 mg/0.5 ml, single use (preservative-free)

Simponi Aria 2 mg/kg IV infusion week 0 and week 4; then every 8 weeks thereafter

Vial: 50 mg/4 ml, single-use, soln for IV infusion after dilution (latex-free, preservative-free)

Comment: corticosteroids, non-biologic DMARDs, and/or NSAIDs may be continued during treatment with *golimumab*.

infliximab (B) <18 years: not recommended; ≥18 years: administer SC or IV infusion (in combination with methotrexate [MTX]) administer by IV infusion over at least 2 hours; 3 mg/kg once weekly at weeks 0, 2, 6, and then every 8 weeks; may increase to 10 mg/kg or administer every 4 weeks</p>

Remicade *Vial*: 100 mg pwdr for reconstitution and dilution; (preservative-free) Comment: Use *infliximab* concomitantly with *methotrexate* when there has been insufficient response to *methotrexate* alone.

#### Interleukin-1 Receptor Antagonist

anakinra (interleukin-1 receptor antagonist) (B) <12 years: not recommended; ≥12 years: 100 mg SC once daily; discard any unused portion</p>

Kineret Prefilled syringe: 100 mg/single-dose syringe (7, 28/pk) (preservative-free)

#### Interleukin-6 Receptor Antagonist

Sarilumab <18 years: not recommended; ≥18 years: 200 mg SC every 2 weeks on
 the same day; if necessary, the dosage can be reduced 150 mg every 2 weeks to manage potential laboratory abnormalities, such as neutropenia, thrombocytopenia,
 and liver enzyme elevations; SC injections may be self-administered
</p>

Kevzara Prefilled syringe: 150, 200 mg (1.4 ml, single-use) Comment: sarilumab is a human monoclonal antibody that binds to the interleukin-6 receptor (IL-6R), and has been shown to inhibit IL-6R mediated signaling. IL-6 is a cytokine in the body that, in excess and over time, can contribute to the inflammation associated with RA. Kevzara received FDA approval in May, 2017 for use in patients with active moderate-to-severe rheumatoid arthritis (RA) in adults who have had an inadequate response or intolerance to one or more disease modifying antirheumatic drugs (DMARDs). Kevzara may be used as monotherapy or in combination with *methotrexate* or other conventional DMARDs. Monitor patient for dose related laboratory changes including elevated LFTs, neutropenia, and thrombocytopenia. Kevzara should not be initiated in patients with an absolute neutrophil count (ANC) <2000/mm3, platelet count <150,000/mm3, or liver transaminases above 1.5 times the upper limit of normal (ULN). Registration in the Pregnancy Exposure Registry (1-877-311-8972) is encouraged for monitoring pregnancy outcomes in women exposed to Keyzara during pregnancy. Negative side effects of Kevzara should be reported to the FDA at www.fda.gov/medwatch or call 1-800-FDA-1088 or call Sanofi-Aventis at 1-800-633-1610. The limited available data with Kevzara in pregnant women are not sufficient to determine whether there is a drug-associated risk for major birth defects and miscarriage. Monoclonal antibodies, such as sarilumab, are actively transported across the placenta during the third trimester of pregnancy and may affect immune response in the infant exposed in utero. It is not known whether

- *sarilumab* passes into breast milk; therefore, breastfeeding is not recommended while using **Keyzara**.
- ▶ tocilizumab (B) <2 years: not recommended; ≥2 years: weight-based dosing according to diagnosis: PJIA: ≥30 kg: 8 mg/kg SC every 4 weeks; <30 kg: 10 mg/kg SC every 4 weeks; SJIA: ≥30 kg: 8 mg/kg SC every 2 weeks; <30 kg: 12 mg/kg SC every 2 weeks; IV Infusion: administer over 1 hour; do not administer as bolus or IV push; PJIA, and SJIA, ≥30 kg: dilute to 100 mL in 0.9% or 0.45% NaCl. PJIA and SJIA, <30 kg: dilute to 50 mL in 0.9% or 0.45% NaCl; ≥18 years: whether used in combination with DMARDs or as monotherapy, the recommended IV infusion starting dose is 4 mg/kg IV every 4 weeks followed by an increase to 8 mg/kg IV every 4 weeks based on clinical response; Max 800 mg per infusion in RA patients; SC Administration: ≥100 kg: 162 mg SC once weekly on the same day; SC injections may be self-administered

Actemra Vial: 80 mg/4 ml, 200 mg/10 ml, 400 mg/20 ml, single-use, for IV infusion after dilution; Prefilled syringe: 162 mg (0.9 ml, single-dose) Comment: *tocilizumab* is an interleukin-6 receptor- $\alpha$  inhibitor indicated for use in moderate-to-severe rheumatoid arthritis (RA) that has not responded to conventional therapy, and also for some subtypes of juvenile idiopathic arthritis (JIA). Actemra may be used alone or in combination with methotrexate and in RA, other DMARDs may be used. Monitor patient for dose related laboratory changes including elevated LFTs, neutropenia, and thrombocytopenia. Actemra should not be initiated in patients with an absolute neutrophil count (ANC) <2000/mm3, platelet count <100,000/mm3, or who have ALT or AST above 1.5 times the upper limit of normal (ULN). Registration in the Pregnancy Exposure Registry (1-877-311-8972) is encouraged for monitoring pregnancy outcomes in women exposed to Actemra during pregnancy. The limited available data with Actemra in pregnant women are not sufficient to determine whether there is a drug-associated risk for major birth defects and miscarriage. Monoclonal antibodies, such as tocilizumab, are actively transported across the placenta during the third trimester of pregnancy and may affect immune response in the infant exposed *in utero*. It is not known whether tocilizumab passes into breast milk; therefore, breastfeeding is not recommended while using Actemra.

#### Selective Costimulation Modulator

abatacept (C) <6 years: not recommended; 6-17 years: administer as an IV infusion over 30 minutes at weeks 0, 2, and 4; then every 4 weeks thereafter; <75 kg, administer 10 mg/kg; max 1 g; ≥17 years: administer as an IV infusion over 30 minutes at weeks 0, 2, and 4; then every 4 weeks thereafter; <60 kg, administer 500 mg/dose; 60-100 kg, administer 750 mg/dose; >100 kg, administer 1 gm/dose

Orencia Vial: 250 mg pwdr for IV infusion after reconstitution (silicone-free) (preservative-free); Prefilled syringe: 125 mg/ml soln for SC injection (preservative-free); ClickJect Autoinjector: 125 mg/ml soln for SC injection

#### **CD20 ANTIBODY**

rituximab (C) <6 years: not recommended; ≥6 years: administer corticosteroid 30 minutes prior to each infusion; concomitant methotrexate therapy, administer a 1,000 mg IV infusion at 0 and 2 weeks; then every 24 weeks or based on response, but not sooner than every 16 weeks.</p>

Rituxan Vial: 10 mg/ml (10, 50 ml) (preservative-free)

#### INTRA-ARTICULAR INJECTION

➤ *sodium hyaluronate* < 12 years: not recommended; ≥12 years: 20 mg as intra-articular injection weekly x 5 weeks

Hyalgan Prefilled syringe: 20 mg/2 ml

Comment: Remove joint effusion and inject with *lidocaine* if possible before injecting **Hyalgan**.

### RHINITIS/SINUSITIS: ALLERGIC

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

#### **SECOND GENERATION ANTIHISTAMINES**

Comment: Second generation antihistamines are sedating, but much less so than the first generation antihistamines. All antihistamines are excreted into breast milk.

cetirizine (C)(OTC)(G) <6 years: not recommended; ≥6-<65 years: initially 5-10 mg once daily; ≥65 years: 5 mg once daily
</p>

Children's Zyrtec Chewable Chew tab: 5, 10 mg (grape)

Children's Zyrtec Allergy Syrup Syr: 1 mg/ml (4 oz) (grape, bubble gum)

(sugar-free, dye-free)

Zyrtec Tab: 10 mg

Zyrtec Hives Relief Tab: 10 mg

Zyrtec Liquid Gels Liq gel: 10 mg

► desloratadine (C)

Clarinex <6 years: not recommended; ≥6 years: 1/2-1 tab once daily

Tab: 5 mg

Clarinex RediTabs <6 years: not recommended; 6-12 years: 2.5 mg once daily; ≥12 years: 5 mg once daily

*ODT*: 2.5, 5 mg (tutti-frutti) (phenylalanine)

Clarinex Syrup <6 months: not recommended; 6-11 months: 1 mg (2 ml) once daily; 1-5 years: 1.25 mg (2.5 ml) once daily; 6-11 years: 2.5 mg (5 ml) once daily; ≥12 years: 5 mg (10 ml) once daily

Tab: 0.5 mg per ml (4 oz) (tutti-frutti) (phenylalanine)

Desloratadine ODT

fexofenadine (C)(OTC)(G) 6 months-2 years: 15 mg bid; CrCl ≤90 mL/min: 15 mg once daily; 2-11 years: 30 mg bid; CrCl ≤90 mL/min: 30 mg once daily ≥12 years and older: ≥ 12 years: 60 mg once daily-bid or 180 mg once daily; CrCl <90 mL/min: 60 mg once daily Allegra Tab: 30, 60, 180 mg film-coat
</p>

Allegra Allergy Tab: 60, 180 mg film-coat

Allegra ODT ODT: 30 mg (phenylalanine)

Allegra Oral Suspension Oral susp: 30 mg/5 ml (6 mg/ml) (4 oz)

▶ loratadine (C)(OTC)(G) <2 years: not recommended; 2-5 years: 5 mg once daily; ≥6 years: 5 mg bid or 10 mg once daily; Hepatic or Renal Insufficiency: (see mfr pkg insert)

Children's Claritin Chewables Chew tab: 5 mg (grape) (phenylalanine)

Children's Claritin Syrup 1 mg/ml (4 oz) (fruit) (sugar-free, alcohol-free, dye-

free; sodium 6 mg/5 ml)

Claritin Tab: 10 mg

Claritin Hives Relief Tab: 10 mg

Claritin Liqui-Gels Lig gel: 10 mg

Claritin RediTabs 12 Hours ODT: 5 mg (mint)

Claritin RediTabs 24 Hours ODT: 10 mg (mint)

▶ levocetirizine (B)(OTC) administer dose in the PM; Seasonal Allergic Rhinitis: <2 years: not recommended; may start at ≥2 years; Chronic Idiopathic Urticaria (CIU), Perennial Allergic Rhinitis: <6 months: not recommended; may start at ≥ 6 months; Dosing by Age: 6 months-5 years: max 1.25 mg once daily; 6-11 years: max 2.5 mg once daily; ≥12 years: 2.5-5 mg once daily; Renal Dysfunction <12 years: contraindicated; Renal Dysfunction ≥12 years: CrCl 50-80 ml/min: 2.5 mg once daily; CrCl 30-50 mL/min: 2.5 mg every other day; CrCl: 10-30 mL/min: 2.5 mg twice weekly (every 3-4 days); CrCl <10 mL/min, ESRD or hemodialysis: contraindicated;</p>

Xyzal Tab: 5\*mg

Xyzal Oral Solution Oral soln: 0.5 mg/ml (150 ml)

#### FIRST GENERATION ANTIHISTAMINES

hydroxyzine (C)(G) <6 years: 50 mg/day divided qid prn; ≥6 years: 50-100 mg/day divided qid prn; max 600 mg/day; 25 mg tid prn; max 600 mg/day</p>

Atarax Tab: 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)

Vistaril Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

#### **ALLERGEN EXTRACTS**

Comment: Allergen extracts (Grastek, Oralair, Ragwitek) are not for immediate relief of allergic symptoms. Contraindicated with severe, unstable, and uncontrolled asthma, history of eosinophilic esophagitis, and severe local or systemic reaction. First dose under supervision HCP and observe ≥30 minutes. Subsequent doses may be taken at home.

► short ragweed pollen allergen extract (C) <18 years: not recommended; ≥18 years: one SL tab once daily

Ragwitek *SL tab*: ambrosia artemisiifolia 12 amb a 1-unit (30, 90/blister pck) Comment: Initiate Ragwitek at least 12 weeks before onset of ragweed pollen season and continue throughout season.

Sweet vernal, orchard, perennial rye, timothy, Kentucky blue grass mixed pollen allergen extract (C) <10 years: not established; 10-17 years: Day 1: 100 IR; Day 2: 200 IR; Day 3 and thereafter: 300 IR once daily; >17 years: 300 IR once daily

Oralair SL tab: 100, 300 IR (index of reactivity) (30/blister pck)

Comment: Oralair is indicated for grass pollen-induced allergic rhinitis with or without conjunctivitis confirmed by positive skin test. Initiate Oralair at least 4 months before onset of grass pollen season and continue throughout season.

Timothy grass pollen allergen extract (C) <5 years: not established; ≥5 years: one SL tab once daily
</p>

Grastek *SL tab*: 2800 bioequivalent allergy units (BAUS) (30/blister pck) Comment: Grastek is indicated for grass pollen-induced allergic rhinitis with or without conjunctivitis confirmed by positive skin test. Initiate Grastek at least 12 weeks before onset of grass pollen season and continue throughout season.

#### NASAL DECONGESTANT

**▶** tetrahydrozoline (C)

Tyzine

Nasal spray: 0.1% (15 ml); Nasal drops: 0.1% (30 ml)

Tyzine Pediatric Nasal Drops 2-3 sprays or drops in each nostril q 3-6 hours prn

*Nasal drops*: 0.05% (15 ml)

#### LEUKOTRIENE RECEPTOR ANTAGONISTS (LRAs)

Comment: The LRAs are indicated for prophylaxis and chronic treatment, only. Not for primary (rescue) treatment of acute asthma attack.

montelukast (B)(G) < 12 months: not recommended; 12-23 months: one 4 mg granule pkt daily; 2-5 years: one 4 mg chew tab or granule pkt daily; >5-14 years: one 5 mg chew tab daily; >14 years: 10 mg once daily in the PM; for EIB, take at least 2 hours before exercise; max 1 dose/day

Singulair Tab: 10 mg

Singulair Chewable Chew tab: 4, 5 mg (cherry) (phenylalanine)

Singulair Oral Granules *Granules*: 4 mg/pkt; take within 15 minutes of opening pkt; may mix with applesauce, carrots, rice, or ice cream

zafirlukast (B) <7 years: not recommended; 7-11 years: 10 mg bid 1 hour ac or 2 hours pc; >11 years: 20 mg bid, 1 hour ac or 2 hours pc

Accolate Tab: 10, 20 mg

≥ zileuton (C)

**Zyflo** <12 years: not recommended; ≥12 years: 1 tab qid; max 2400 mg/day *Tab*: 600 mg

Zyflo CR <12 years: not recommended;  $\geq$ 12 years: 2 tabs bid; max 1200 mg/day

Tab: 600 mg ext-rel

#### NASAL CORTICOSTEROIDS

*▶* beclomethasone dipropionate (C)

Beconase <6 years: not recommended; 6-12 years: 1 spray in each nostril tid; >12 years: 1 spray in each nostril bid-qid

Nasal spray: 42 mcg/actuation (6.7 g, 80 sprays; 16.8 g, 200 sprays)

Beconase AQ <6 years: not recommended; ≥6 years: 1-2 sprays in each nostril bid

Nasal spray: 42 mcg/actuation (25 g, 180 sprays)

Beconase Inhalation Aerosol <6 years: not recommended; 6-12 years: 1 spray in each nostril tid; >12 years: 1-2 sprays in each nostril bid to qid

Nasal spray: 42 mcg/actuation (6.7 g, 80 sprays; 16.8 g, 200 sprays)

Vancenase AQ <6 years: not recommended; ≥6 years: 1-2 sprays in each nostril

Nasal spray: 84 mcg/actuation (25 g, 200 sprays)

Vancenase AQ DS <6 years: not recommended; ≥6 years: 1-2 sprays in each nostril once daily

Nasal spray: 84, 168 mcg/actuation (19 g, 120 sprays)

Vancenase Pockethaler <6 years: not recommended; ≥6 years: 1 spray in each nostril bid or tid

Pockethaler: 42 mcg/actuation (7 g, 200 sprays)

QNASL Nasal Aerosol <12 years: 2 sprays, 40 mcg/spray, in each nostril once daily; ≥12 years: 2 sprays, 80 mcg/spray, in each nostril once daily

Nasal spray: 40 mcg/actuation (4.9 g, 60 sprays); 80 mcg/actuation (8.7 g, 120 sprays)

#### budesonide (C)

Rhinocort <6 years: not recommended; >6 years: initially 2 sprays in each nostril bid in the AM and PM, or 4 sprays in each nostril in the AM; max 4 sprays each nostril/day; use lowest effective dose

Nasal spray: 32 mcg/actuation (7 g, 200 sprays)

Rhinocort Aqua Nasal Spray <6 years: not recommended; ≥6-12 years: initially 1 spray in each nostril once daily; max 2 sprays in each nostril once daily; >12 years: initially 1 spray in each nostril once daily; max 4 sprays in each nostril once daily

Nasal spray: 32 mcg/actuation (10 ml, 60 sprays)

ciclesonide (C)

Omnaris <6 years: not recommended; ≥6 years: 2 sprays in each nostril once daily

Nasal spray: 50 mcg/actuation (12.5 g, 120 sprays)

Zetonna <6 years: not recommended; ≥6 years: 1-2 sprays in each nostril once daily

Nasal spray: 37 mcg/actuation (6.1 g, 60 sprays) (HFA)

dexamethasone (C) <6 years: not recommended; ≥6-12 years: 1-2 sprays in each nostril bid; max 8 sprays/day; maintain at lowest effective dose; >12 years: 2 sprays in each nostril bid-tid; max 12 sprays/day; maintain at lowest effective dose

Dexacort Turbinaire Nasal spray: 84 mcg/actuation (12.6 g, 170 sprays)

► fluticasone furoate (C) <2 years: not recommended; ≥2-11 years: 1 spray in each nostril once daily; ≥12 years: 2 sprays in each nostril once daily; may reduce to 1 spray each nostril once daily</p>

Veramyst Nasal spray: 27.5 mcg/actuation (10 g, 120 sprays) (alcohol-free)

▶ fluticasone propionate (C)(OTC)(G) <4 years: not recommended; >4-12 years: initially 1 spray in each nostril once daily; may increase to 2 sprays in each nostril once daily; maintenance 1 spray in each nostril once daily; max 2 sprays in each nostril/day; >12 years: initially 2 sprays in each nostril once daily or 1 spray bid; maintenance 1 spray once daily

Flonase Nasal spray: 50 mcg/actuation (16 g, 120 sprays)

▶ flunisolide (C) <6 years: not recommended; 6-14 years: initially 1 spray in each nostril tid or 2 sprays in each nostril bid; max 4 sprays/nostril/day; >14 years: 2 sprays in each nostril bid; may increase to 2 sprays in each nostril tid; max 8 sprays/nostril/day

Nasalide Nasal spray: 25 mcg/actuation (25 ml, 200 sprays)

Nasarel Nasal spray: 25 mcg/actuation (25 ml, 200 sprays)

Nasonex Nasal spray: 50 mcg/actuation (17 g, 120 sprays)

olopatadine (C) <6 years: not recommended; 6-11 years: 1 spray each nostril bid; >11 years: 2 sprays in each nostril bid

Patanase Nasal spray: 0.6%; 665 mcg/actuation (30.5 g, 240 sprays) (benzalkonium chloride)

triamcinolone acetonide (C)(G) <6 years: not recommended; ≥6 years-12 years: 1 spray in each nostril once daily; max 2 sprays in each nostril once daily; >12 years: initially 2 sprays in each nostril once daily; max 4 sprays in each nostril once daily or 2 sprays in each nostril bid or 1 spray in each nostril qid; maintain at lowest effective dose

Nasacort Allergy 24HR (OTC) Nasal spray: 55 mcg/actuation (10 g, 120 sprays) Tri-Nasal Nasal spray: 50 mcg/actuation (15 ml, 120 sprays)

#### NASAL MAST CELL STABILIZERS

cromolyn sodium (B)(OTC) <2 years: not recommended; ≥2 years: 1 spray in each nostril tid-qid; max 6 sprays in each nostril/day
</p>

Children's NasalCrom, NasalCrom Nasal spray: 5.2 mg/spray (13 ml, 100 sprays; 26 ml, 200 sprays)

Comment: Begin use 1-2 weeks before exposure to known allergen. May take 2-4 weeks to achieve maximum effect.

#### NASAL ANTIHISTAMINES

**>** azelastine (C)

Astelin Ready Spray <5 years: not recommended; ≥5-12 years: 1 spray in each nostril qd-bid; >12 years: 2 sprays in each nostril bid

Nasal spray: 137 mcg/actuation (30 ml, 200 sprays) (benzalkonium chloride) **Astepro 0.15% Nasal Spray** <2 years: not recommended; ≥2 years: 1 or 2 sprays each nostril once daily bid

Nasal spray: 205.5 mcg/actuation (17 ml, 106 sprays; 30 ml, 200 sprays) (benzalkonium chloride)

#### NASAL ANTIHISTAMINE/CORTICOSTEROID COMBINATION

azelastine/fluticasone (C) <6 years: not recommended; ≥6 years: 1 spray in each nostril bid
</p>

Dymista Nasal spray: azel 137 mcg/flutic 50 mcg per actuation (23 g, 120 sprays) (benzalkonium chloride)

#### NASAL ANTICHOLINERGICS

*▶* ipratropium bromide (B)(G)

**Atrovent Nasal Spray 0.03%** <6 years: not recommended; ≥6 years: 2 sprays in each nostril bid-tid

Nasal spray: 21 mcg/actuation (30 ml, 345 sprays)

Atrovent Nasal Spray 0.06% 2 <5 years: not recommended; 5-11 years: 2 sprays in each nostril tid; >11 years: sprays in each nostril tid-qid; max 5-7 days Nasal spray: 42 mcg/actuation (15 ml, 165 sprays)

Comment: Avoid use with narrow-angle glaucoma, prostate hyperplasia, and bladder neck obstruction.



### RHINITIS MEDICAMENTOSA

**Comment**: The nasal/oral regimen selected should be instituted with concurrent weaning from the nasal decongestant.

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Nasal Corticosteroids see Rhinitis/Sinusitis: Allergic page 370

Oral Corticosteroids see page 498

Parenteral Corticosteroids see page 499

#### NASAL ANTICHOLINERGICS

ipratropium bromide (B)(G)

Atrovent Nasal Spray 0.03% <6 years: not recommended; ≥6 years: stop nasal decongestant; 2 sprays in each nostril bid-tid with progressive weaning as tolerated

Nasal spray: 21 mcg/actuation (30 ml, 345 sprays)

Atrovent Nasal Spray 0.06% <5 years: not recommended; ≥5-11 years: 2 sprays in each nostril tid; ≥11 years: 2 sprays in each nostril tid-qid with progressive weaning as tolerated

Nasal spray: 42 mcg/actuation (15 ml, 165 sprays)

Comment: Avoid use with narrow-angle glaucoma, prostate hyperplasia, and bladder neck obstruction

#### NASAL ANTIHISTAMINE

azelastine (C) <5 years: not recommended; ≥5-12 years: 1 spray in each nostril bid >12 years: 2 sprays in each nostril bid

Astelin Ready Spray Nasal spray: 137 mcg/actuation (30 ml, 200 sprays)

#### SECOND GENERATION ANTIHISTAMINES

Comment: Second generation antihistamines are sedating, but much less so than the first generation antihistamines. All antihistamines are excreted into breast milk.

cetirizine (C)(OTC)(G) <6 years: not recommended; ≥6-<65 years: initially 5-10 mg once daily; ≥65 years: 5 mg once daily</p>

Children's Zyrtec Chewable Chew tab: 5, 10 mg (grape)

Children's Zyrtec Allergy Syrup Syr: 1 mg/ml (4 oz) (grape, bubble gum)

(sugar-free, dye-free)

Zvrtec Tab: 10 mg

Zvrtec Hives Relief Tab: 10 mg

Zvrtec Liquid Gels Liq gel: 10 mg

▶ desloratadine (C)

Clarinex <6 years: not recommended; ≥6 years: 1/2-1 tab once daily

Tab: 5 mg

Clarinex RediTabs <6 years: not recommended; 6-12 years: 2.5 mg once daily; ≥12 years: 5 mg once daily

*ODT*: 2.5, 5 mg (tutti-frutti) (phenylalanine)

Clarinex Syrup <6 months: not recommended; 6-11 months: 1 mg (2 ml) once daily; 1-5 years: 1.25 mg (2.5 ml) once daily; 6-11 years: 2.5 mg (5 ml) once daily; ≥12 years: 5 mg (10 ml) once daily

*Tab*: 0.5 mg per ml (4 oz) (tutti-frutti) (phenylalanine)

Desloratadine ODT

Fexofenadine (C)(OTC)(G) 6 months-2 years: 15 mg bid; CrCl ≤90 mL/min: 15 mg once daily; 2-11 years: 30 mg bid; CrCl ≤90 mL/min: 30 mg once daily ≥12 years

and older: ≥12 years: 60 mg once daily-bid or 180 mg once daily; CrCl <90 mL/min: 60 mg once daily Allegra Tab: 30, 60, 180 mg film-coat

Allegra Allergy Tab: 60, 180 mg film-coat

Allegra ODT ODT: 30 mg (phenylalanine)

Allegra Oral Suspension Oral susp: 30 mg/5 ml (6 mg/ml) (4 oz)

loratadine (C)(OTC)(G) <2 years: not recommended; 2-5 years: 5 mg once daily; ≥6 years: 5 mg bid or 10 mg once daily; Hepatic or Renal Insufficiency: (see mfr pkg insert)

Children's Claritin Chewables Chew tab: 5 mg (grape) (phenylalanine)

Children's Claritin Syrup 1 mg/ml (4 oz) (fruit) (sugar-free, alcohol-free, dyefree; sodium 6 mg/5 ml)

Claritin Tab: 10 mg

Claritin Hives Relief Tab: 10 mg

Claritin Liqui-Gels Lig gel: 10 mg

Claritin RediTabs 12 Hours *ODT*: 5 mg (mint)

Claritin RediTabs 24 Hours ODT: 10 mg (mint)

levocetirizine (B)(OTC) administer dose in the PM; Seasonal Allergic Rhinitis: <2 years: not recommended; may start at  $\geq 2$  years; Chronic Idiopathic Urticaria (CIU), Perennial Allergic Rhinitis: <6 months; not recommended; may start at  $\geq$  6 months; Dosing by Age: 6 months-5 years: max 1.25 mg once daily; 6-11 years: max 2.5 mg once daily; ≥12 years: 2.5-5 mg once daily; Renal Dysfunction <12 years: contraindicated; Renal Dysfunction ≥12 years: CrCl 50-80 ml/min: 2.5 mg once daily; CrCl 30-50 mL/min: 2.5 mg every other day; CrCl: 10-30 mL/min: 2.5 mg twice weekly (every 3-4 days); CrCl < 10 mL/min, ESRD or hemodialysis: contraindicated;

Xvzal Tab: 5\*mg

Xyzal Oral Solution Oral soln: 0.5 mg/ml (150 ml)

#### FIRST GENERATION ANTIHISTAMINES

> hydroxyzine (C)(G) <6 years: 50 mg/day divided qid prn; ≥6 years: 50-100 mg/day divided gid prn; max 600 mg/day; 25 mg tid prn; max 600 mg/day

**Atarax** *Tab*: 10, 25, 50, 100 mg; *Syr*: 10 mg/5 ml (alcohol 0.5%)

Vistaril Cap: 25, 50, 100 mg; Oral susp: 25 mg/5 ml (4 oz) (lemon)

### RHINITIS: VASOMOTOR

#### NASAL ANTICHOLINERGICS

ipratropium bromide (B)(G)

Atrovent Nasal Spray 0.03% <6 years: not recommended; ≥6 years: stop nasal decongestant; 2 sprays in each nostril bid-tid with progressive weaning as tolerated

Nasal spray: 21 mcg/actuation (30 ml, 345 sprays)

Atrovent Nasal Spray 0.06% <5 years: not recommended; ≥5-11 years: 2 sprays in each nostril tid; >11 years: stop nasal decongestant; 2 sprays in each nostril tid-qid with progressive weaning as tolerated

Nasal spray: 42 mcg/actuation (15 ml, 165 sprays)

Comment: Avoid use with narrow-angle glaucoma, prostate hyperplasia, and bladder neck obstruction

### **ROSEOLA (EXANTHEM SUBITUM)**

Antipyretics see Fever page 136



# ROCKY MOUNTAIN SPOTTED FEVER (RICKETTSIA RICKETTSII)

#### ANTI-INFECTIVES

doxycycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2-2.5 mg/kg q
 12 hours x 7-10 days; ≥8 years, >100 lb: 200 mg on first day; then 100 mg bid x 7-10 days

Acticlate Tab: 75, 150\*\*mg

**Adoxa** *Tab*: 50, 75, 100, 150 mg ent-coat **Doryx** *Tab*: 50, 75, 100, 150, 200 mg del-rel

Monodox *Cap*: 50, 75, 100 mg Oracea *Cap*: 40 mg del-rel

Vibramycin *Tab*: 100 mg; *Cap*: 50, 100 mg; *Syr*: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photo-sensitivity (photophobia). Do not take with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within 2 hours of taking another drug.

▶ tetracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 10 mg/kg/day divided q 6 hours x 7-10 days; see page 574 for dose by weight table; ≥8 years, >100 lb: 500 mg q 6 hours x 7-10 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.



### ROTAVIRUS GASTROENTERITIS

#### **PROPHYLAXIS**

Comment: RotaTeq targets the most common strains of rotavirus (G1, G2, G3, G4), which are responsible for more than 90% of rotavirus disease in the United States.

▶ rotavirus vaccine, live <6 weeks or >32 weeks: not recommended; >6 weeks and <32 weeks: administer 1st dose at 6-12 weeks of age; administer 2nd and 3rd doses at 4-10-week intervals for a total of 3 doses; if an incomplete dose is administered, do not administer a replacement dose, but continue with the remaining doses in the recommended series</p>

RotaTeq Oral susp: 2 ml single-use tube (fetal bovine serum [trace], preservative-free, thimerosal-free)



### **ROUNDWORM (ASCARIASIS)**

#### ANTHELMINTICS

**Comment**: Oral bioavailability of anthelmintics is enhanced when administered with a fatty meal (estimated fat content 40 g).

Albenza Tab: 200 mg

mebendazole (C) take with a meal; may crush and mix with food; may repeat in 3 weeks if needed; <2 years: not recommended; >2 years: 100 mg bid x 3 days;

Emverm Chew tab: 100 mg

Vermox (G) Chew tab: 100 mg

▶ pyrantel pamoate (C) take with a meal; may open capsule and sprinkle or mix with food; treat x 3 days; may repeat in 2-3 weeks if needed; 11 mg/kg/dose; max 1 gm/dose; <25 lb: not recommended; 25-37 lb: 1/2 tsp/dose; 38-62 lb: 1 tsp/dose; 63-87 lb: 1 tsp/dose; 88-112 lb: 2 tsp/dose; 113-137 lb: 2 tsp/dose; 138-162 lb: 3 tsp/dose; 163-187 lb: 3 tsp/dose; >187 lb: 4 tsp/dose

Antiminth (OTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (60 ml)

Pin-X (OTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (30 ml)

thiabendazole (C) take with a meal; may crush and mix with food; treat x 7 days; max 1.5 gm/dose; max 3 g/day <30 lb: consult mfr pkg insert; ≥30 lb: 25 mg/kg/dose bid; 30-50 lb: 250 mg bid; >50 lb: 10 mg/lb/dose bid

Mintezol Chew tab: 500\*mg (orange); Oral susp: 500 mg/5 ml (120 ml) (orange) Comment: thiabendazole is not for prophylaxis. May impair mental alertness. May not be available in the US.

### **RUBELLA (GERMAN MEASLES)**

#### **PROPHYLAXIS**

See Childhood Immunizations page 473

rubella virus, live, attenuated/neomycin vaccine (C) <12 months: not recommended; ≥12 months: 25 mcg SC; if vaccinated <12 months, revaccinate at 12 months;</p>

Meruvax II 25 mcg SC

measles, mumps, rubella, live, attenuated, neomycin vaccine (C)

MMR II 25 mcg SC (preservative-free)

**Comment**: Contraindications: hypersensitivity to *neomycin* or eggs, primary or acquired immune deficiency, immunosuppressant therapy, bone marrow or lymphatic malignancy, and pregnancy (within 3 months following vaccination).

#### **TREATMENT**

➤ *immune globulin* (Ig) 0.25 ml/kg IM (0.5 mg/kg in immunocompromised children)



### **RUBEOLA (RED MEASLES)**

#### **PROPHYLAXIS**

measles, mumps, rubella, live, attenuated, neomycin vaccine (C)

MMR II 25 mcg SC (preservative-free)

Comment: Contraindications: hypersensitivity to *neomycin* or eggs, primary or acquired immune deficiency, immunosuppressant therapy, bone marrow or lymphatic malignancy, and pregnancy (within 3 months following vaccination). See *Childhood Immunizations* page 473

#### **TREATMENT**

immune globulin (Ig) 0.25 ml/kg IM (0.5 mg/kg in immunocompromised children)

### **SALMONELLOSIS**

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 3-5 days; max 1.5 gm/day

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

*▶* trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)



### SCABIES (SARCOPTES SCABIEI)

Comment: This section presents treatment regimens for scabies infestation published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines, as well as other available treatments.

#### RECOMMENDED REGIMEN

> permethrin (B)(G) <2 months: not recommended: ≥2 months: massage into skin from head to soles of feet; leave on x 8-14 hours, then rinse off

Acticin, Elimite Crm: 5% (60 gm)

#### ALTERNATIVE REGIMEN

 $\triangleright$  lindane (B)(G) <2 months: not recommended; ≥2 months: 1 oz of lotion or 30 gm of cream apply to all skin surfaces from neck down to the soles of the feet; leave on x 8 hours, then wash off thoroughly; may repeat if needed in 14 days

Kwell Lotn: 1% (60, 473 ml); Crm: 1% (60 gm); Shampoo: 1% (60, 473 ml)

#### OTHER TOPICAL TREATMENTS

> crotamiton (C) <12 years: not recommended; ≥12 years: massage into skin from chin down; repeat in 24 hours

Eurax Lotn: 10% (60 gm); Crm: 10% (60 gm)



### SCARLET FEVER (SCARLATINA)

Comment: Microorganism responsible for scarlet fever is Group A beta-hemolytic Streptococcus (GABHS). Strep cultures and screens will be positive.

azithromycin (B)(G) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg once daily on days 2-5 or 500 mg once daily x 5 days

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

cefadroxil < 12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in a single or 2 divided doses x 10 days Duricef Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml (75, 100 ml) (orange-pineapple)

cephalexin (B)(G)25-50 mg/kg/day in 2 divided doses x 10 days; see page 557 for dose by weight table

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

 $\triangleright$  clarithromycin (C)(G) <6 months: not recommended;  $\ge$ 6 months-12 years: 7.5 mg/ kg bid x 14-21 days; see page 558 for dose by weight table; >12 years: 500 mg bid or 500 mg ext-rel daily x 14-21 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

clindamycin (B)(G) <12 years: 8-16 mg/kg/day in 3-4 divided doses x 10 days; see page 559 for dose by weight table; ≥12 years: 150-300 mg q 6 hours x 10 days Cleocin Cap: 75 (tartrazine), 150 (tartrazine), 300 mg

Cleocin Pediatric Granules Oral susp: 75 mg/5 ml (100 ml) (cherry)

Ilosone Pulvule: 250 mg; Tab: 500 mg; Liq: 125, 250 mg/5 ml (100 ml)

► erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 10 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

penicillin g (benzathine and procaine) (B)(G) <30 lb: 600,000 units IM x 1 dose;
 30-60 lb: 900,000-1.2 million units IM x 1 dose; >60 lbs: 2.4 million units IM x 1
 dose

Bicillin C-R Cartridge-needle unit: 600,000 units (1 ml); 1.2 million units; (2 ml); 2.4 million units (4 ml)

Penicillin v potassium (B) <12 years: 25-75 mg/kg day divided q 6-8 hours x 10 days; see page 572 for dose by weight table; ≥12 years: 250 mg tid x 10 days Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)</p>

### SEIZURE DISORDER

Status Epilepticus see Status Epilepticus page 392 Anticonvulsant Drugs see page 509

# SEXUAL ASSAULT (STD/STI/VD EXPOSURE)

Comment: The following treatment regimens for victims of sexual assault are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines.

#### RECOMMENDED PROPHYLAXIS REGIMEN

ceftriaxone 250 mg IM in a single dose plus metronidazole 2 gm in a single dose plus azithromycin 1 gm in a single dose

### **ALTERNATE PROPHYLAXIS REGIMENS**

#### Regimen 1

ceftriaxone 250 mg IM in a single dose plus metronidazole 2 gm in a single dose plus doxycycline 100 mg bid x 7 days

#### Regimen 2

cefixime 400 mg in a single dose <u>plus</u> metronidazole 2 gm in a single dose <u>plus</u> azithromycin 1 gm in a single dose

#### Regimen 3

cefixime 400 mg in a single dose plus metronidazole 2 gm in a single dose plus doxycycline 100 mg bid x 7 days

#### Regimen 4

azithromycin (B)(G) 1 gm as a single dose plus metronidazole 2 gm in a single dose

#### DRUG BRANDS AND DOSE FORMS

*azithromycin* (B)(G)

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

cefixime (B)(G)

**Suprax** *Tab*: 400 mg; *Cap*: 400 mg; *Oral susp*: 100, 200, 500 mg/5 ml (50, 75, 100 ml) (strawberry)

ceftriaxone (B)(G)

Rocephin Vial: 250, 500 mg; 1, 2 g

doxycycline (D)(G)

Acticlate Tab: 75, 150\*\*mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: doxycycline is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

metronidazole (not for use in 1st; B in 2nd, 3rd)(G) Flagyl Tab: 250\*, 500\*mg

Flagyl 375 Cap: 375 mg

Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

## SHIGI

### **SHIGELLOSIS**

#### ANTI-INFECTIVES

azithromycin (B) <6 months: not recommended; ≥6 months-12 years: 10 mg/kg x 1 dose on day 1; then 5 mg/kg/day on days 2-5; see page 548 for dose by weight table; max 500 mg/day; >12 years: 500 mg x 1 dose on day 1, then 250 mg once daily on days 2-5 or 500 mg once daily x 3 days or Zmax 2 gm in a single dose

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>) ⇒ ciprofloxacin (C) <18 years; not recommended; ≥18 years; 500 mg bid x 3 days; max

1.5 gm/day Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml)

(strawberry) Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

 $\triangleright$  of loxacin (C)(G) < 18 years: not recommended; ≥ 18 years: 400 mg bid x 3 days Floxin Tab: 200, 300, 400 mg

Comment: ofloxacin is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

 $\triangleright$  tetracycline (D)(G) <8 years: not recommended;  $\geq$ 8 years,  $\leq$ 100 lb: 25-50 mg/kg/ day in 4 divided doses x 5 days; see page 574 for dose by weight table; ≥8 years, >100 lb: 250-500 mg qid x 5 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: tetracycline is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

► trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of sulfamethoxazole in 2 doses bid: >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)



### SINUSITIS/RHINOSINUSITIS: ACUTE BACTERIAL (ABRS)

#### ANTI-INFECTIVES

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table; ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox *Tab*: 125, 250 mg; *Cap*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

➤ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended; ≥3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table; ≥40 kg: use tab

Oral susp: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 250-500 mg q 8 hours x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with food

Tab: 375, 500 mg ext-rel

cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in a single or 2 divided doses x 10 days; see page 551 for dose by weight table; >12 years: 300 mg bid or 600 mg once daily x 10 days

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

cefixime (B)(G) <6 months: not recommended; 6 months-12 years, <50 kg: 8 mg/kg/day in 1-2 divided doses x 10 days; see page 552 for dose by weight table; >12 years, >50 kg: 400 mg once daily x 10 days

Suprax Tab: 400 mg; Cap: 400 mg; Oral susp: 100, 200, 500 mg/5 ml (50, 75, 100 ml) (strawberry)

cefpodoxime proxetil <2 months: not recommended; 2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 10 days; see page 553 for dose by weight table; >12 years: 200 mg bid x 10 days

cefprozil (B) <6 months: not recommended; 6 months-12 years: Mild: 7.5 mg/kg bid x 10 days; Moderate/Severe: 15 mg/kg q 12 hours x 10 days; see page 554 for dose by weight table; >12 years: 250-500 mg bid x 10 days

Cefzil *Tab*: 250, 500 mg; *Oral susp*: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)

**Ceftibuten** (B) <12 years: 9 mg/kg once daily x 10 days; max 400 mg/day; see page 555 for dose by weight table; ≥12 years: 400 mg once daily x 10 days

Cedax Cap: 400 mg; Oral susp: 90 mg/5 ml (30, 60, 90, 120 ml); 180 mg/5 ml (30, 60, 120 ml) (cherry)

cefuroxime axetil (B)(G) <3 months: not recommended; 3 months-12 years: 20-30 mg/kg/day in 2 divided doses x 10 days; see page 556 for dose by weight table; ≥12 years: 250-500 mg bid x 10 days</p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid x 10 days; max 1.5 gm/day

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml)

(strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

**Comment**: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/ kg bid x 10 days; see page 558 for dose by weight table; >12 years: 500 mg bid or 500 mg ext-rel daily x 10 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

▶ levofloxacin (C) <18 years: not recommended; ≥18 years: Uncomplicated: 500 mg once daily x 10-14 days; Complicated: 750 mg once daily x 10-14 days</p>

Levaquin *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol); *Inj conc*: 25 mg/ml for IV infusion after dilution (20, 30 ml single-use vial) (preservative-free); *Premix soln*: 5 mg/ml for IV infusion (50, 100, 150 ml) (preservative-free)

 ${\tt Comment:} \ {\tt levofloxacin} \ {\tt is contraindicated} < 18 \ {\tt years-of-age, and during pregnancy and lactation.} \ Risk of tendonitis \ \underline{\tt or} \ {\tt tendon rupture.}$ 

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 10 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 10 days</p>

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

moxifloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg daily x 10 days
 Avelox Tab: 400 mg
</p>

Comment: *moxifloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

 $\triangleright$  trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

### SJOGREN'S SYNDROME (CHRONIC DRY MOUTH)

#### CHOLINERGIC/MUSCARINIC AGONIST COMBINATION

cevimeline (C)(G) 30 mg tid Evoxac Cap: 30 mg Comment: cevimeline is contraindicated in acute iritis, narrow-angle glaucoma, and uncontrolled asthma.

► pilocarpine (C)(G) 5 mg qid or 7.5 mg tid Salagen Tab: 5, 7.5 mg

#### ORAL ENZYME RINSE

xylitol/solazyme/selectobac (NE) swish 5 ml for 30 seconds bid-tid Orazyme Dry Mouth Rinse Oral soln: 1.5, 16 oz



### **SKIN: CALLOUSED**

#### KERATOLYTICS

Salicylic acid (C)(OTC) < 12 years: not recommended; ≥12 years: apply lotion, cream or gel to affected area qd-bid; apply patch to affected area and leave on x 48 hours with max 5 applications/14 days
</p>

urea (C)

Carmol 40 <12 years: not recommended; ≥12 years: apply to affected area with applicator stick provided once daily-tid; smooth over until cream is absorbed; protect surrounding tissue; may cover with adhesive bandage or gauze secured with adhesive tape

Crm/Gel: 40% (30 gm)

Keratol 40 <12 years: not recommended; ≥ 12 years: apply to affected area with applicator stick provided once daily-tid; smooth over until cream is absorbed; protect surrounding tissue; may cover with adhesive bandage or gauze secured with adhesive tape

Crm: 40% (1, 3, 7 oz); Gel: 40% (15 ml); Lotn: 40% (8 oz)

Comment: The moisturizing effect of Carmol 40 and Keratol 40 is enhanced by applying while the skin is still moist (after washing or bathing).



# SKIN INFECTION: BACTERIAL (CARBUNCLE, FOLLICULITIS, FURUNCLE)

Comment: Abscesses usually require surgical incision and drainage.

▶ hexachlorophene (C) dispense 5 ml into wet hand, work up into lather; then apply to area to be cleansed; rinse thoroughly

pHisoHex Liq clnsr: 5, 16 oz

#### **TOPICAL ANTI-INFECTIVES**

► mupirocin (B)(G) apply to lesions bid

Bactroban Oint: 2% (22 gm); Crm: 2% (15, 30 gm)

Centany Oint: 2% (15, 30 gm)

▶ polymyxin B/neomycin (C) oint: apply once daily-tid

Neosporin (OTC) Oint: 15 g

#### ORAL ANTI-INFECTIVES

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table; ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

> azithromycin (B) <6 months: not recommended; ≥6 months-12 years: 10 mg/kg x 1 dose on day 1; then 5 mg/kg/day on days 2-5; see page 548 for dose by weight table; max 500 mg/day; >12 years; 500 mg x 1 dose on day 1, then 250 mg once daily on days 2-5 or 500 mg once daily x 3 days or Zmax 2 gm in a single dose

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>) cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg

divided bid or tid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 375 mg bid x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with food

Tab: 375, 500 mg ext-rel

cefadroxil <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in a single or 2 divided doses x 10 days Duricef Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml

(75, 100 ml) (orange-pineapple)

cefdinir (B) <6 months; not recommended; 6 months-12 years; 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; ≥12 years: 300 mg bid x 10 days or 600 mg daily x 10 days

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

⇒ cefditoren pivoxil (B) <12 years: not recommended; ≥12 years: 200 mg bid x 10 days Spectracef Tab: 200 mg

**Comment:** Contraindicated with milk protein allergy or carnitine deficiency.

cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/ kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 7-14 days; see page 553 for dose by weight table; >12 years: 400 mg bid x 7-14 days

cefprozil (B) <2 years: not recommended; 2-12 years: 7.5 mg/kg bid x 10 days; see page 554 for dose by weight table; >12 years: 250-500 mg bid or 500 mg once daily x 10 days

Cefzil Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)

ceftriaxone (B)(G) <12 years: 50-75 mg/kg IM in 1-2 divided doses; max 2 gm/day; ≥12 years: 1-2 gm IM once daily; max 4 gm/day

Rocephin Vial: 250, 500 mg; 1, 2 g

cefuroxime axetil (B)(G) <3 months: not recommended; 3 months-12 years: 20-30 mg/kg/day in 2 divided doses x 10 days; see page 556 for dose by weight table; ≥12 years: 250-500 mg bid x 10 days</p>

Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

> cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 500 mg bid x 10 days

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml)

(strawberry)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/
 kg bid x 10 days; see page 558 for dose by weight table; >12 years: 250-500 mg bid or
 500-1000 mg ext-rel once daily x 10 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension Oral susp: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL Tab: 500 mg ext-rel

dicloxacillin (B) <12 years: 12.5-25 mg/kg/day in 4 divided doses x 10 days; see page 560 for dose by weight table; >12 years: 500 mg qid x 10 days

Dynapen Cap: 125, 250, 500 mg; Oral susp: 62.5 mg/5 ml (80, 100, 200 ml)

dirithromycin (C)(G) <12 years: not recommended; ≥12 years: 500 mg once daily x 10 days
</p>

Dynabac Tab: 250 mg

Doscycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 1 mg/lb in a single dose once daily x 9 days; ≥8 years, >100 lb: 100 mg bid x 9 days; see page 561 for dose by weight table

Acticlate Tab: 75, 150\*\*mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Dorvx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin *Tab*: 100 mg; *Cap*: 50, 100 mg; *Syr*: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

► erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 10 days; ≥45 kg:

500 mg q 6 hours x 10 days

Ery-Tab *Tab*: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

Perythromycin estolate (B)(G) <12 years: 20-50 mg/kg q 6 hours x 10 days; see page 562 for dose by weight table; ≥12 years: 250-500 mg q 6 hours x 10 days</p>

**Ilosone** *Pulvule*: 250 mg; *Tab*: 500 mg; *Liq*: 125, 250 mg/5 ml (100 ml)

▶ erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 10 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

gemifloxacin (C)(G) <18 years: not recommended; ≥18 years: 320 mg once daily x
 5-7 days
</p>

Factive Tab: 320\*mg

Comment: *gemifloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

▶ levofloxacin (C) <18 years: not recommended; ≥18 years: Uncomplicated: 500 mg once daily x 7-10 days; Complicated: 750 mg once daily x 7-10 days</p>

Levaquin *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol); *Inj conc*: 25 mg/ml for IV infusion after dilution (20, 30 ml single-use vial) (preservative-free); *Premix soln*: 5 mg/ml for IV infusion (50, 100, 150 ml) (preservative-free)

Comment: *levofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

▶ linezolid (C)(G) <5 years: 10 mg/kg q 8 hours x 10-14 days; 5-11 years: 10 mg/kg q 12 hours x 10-14 days; >11 years: 400-600 mg q 12 hours x 10-14 days

Zyvox Tab: 400, 600 mg; Oral susp: 100 mg/5 ml (150 ml) (orange) (phenylalanine)

**Comment**: *linezolid* is indicated to treat susceptible vancomycin-resistant *E. faecium* infections.

► loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 7 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 7 days

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

minocycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb q 12 hours x 9 more days; ≥8 years, >100 lb: 200 mg on first day; then 100 mg q 12 hours x 9 more days

Dynacin Cap: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

moxifloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg daily x 10 days
</p>

Avelox Tab: 400 mg

Comment: *moxifloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

Comment: ofloxacin is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

tetracycline (D)(G) <8 years: not recommended; ≥8 years, ≤100 lb: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 574 for dose by weight table; ≥8 years, >100 lb: 500 mg qid x 10 days

Achromycin V Cap: 250, 500 mg

Sumycin Tab: 250, 500 mg; Cap: 250, 500 mg; Oral susp: 125 mg/5 ml (100, 200 ml) (fruit) (sulfites)

Comment: *tetracycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk <u>or</u> other dairy, <u>or</u> within two hours of taking another drug.



### **SLEEP APNEA (HYPOPNEA SYNDROME)**

#### ANTINARCOLEPTIC AGENTS

armodafinil (C)(IV)(G) <17 years: not recommended; ≥17 years: OSAHS: 150-250 mg once daily in the AM; SWSD: 150 mg 1 hour before starting shift; reduce dose with severe hepatic impairment</p>

Nuvigil Tab: 50, 150, 200, 250 mg

modafinil (C)(IV) <16 years: not recommended; ≥16 years: 100-200 mg q AM; max
 400 mg/day
</p>

Provigil Tab: 100, 200\*mg

**Comment:** *modafinil* promotes wakefulness in patients with excessive sleepiness due to obstructive sleep apnea/hypopnea syndrome.



# SLEEPINESS: EXCESSIVE/SHIFT WORK SLEEP DISORDER (SWSD)

#### ANTINARCOLEPTIC AGENT

armodafinil (C)(IV)(G) <17 years: not recommended; ≥17 years: OSAHS: 150-250 mg once daily in the AM; SWSD: 150 mg 1 hour before starting shift; reduce dose with severe hepatic impairment
</p>

Nuvigil Tab: 50, 150, 200, 250 mg

> modafinil (C)(IV) <16 years: not recommended; ≥16 years: 100-200 mg q AM; max 400 mg/day</p>

Provigil Tab: 100, 200\*mg

Comment: Provigil promotes wakefulness in patients with narcolepsy, shift work sleep disorder, and excessive sleepiness due to obstructive sleep apnea/ hypopnea syndrome.



## **SMALLPOX (VARIOLA MAJOR)**

#### **PROPHYLAXIS**

vaccinia virus vaccine (dried, calf lymph type) (C) <12 months: not recommended; 12 months-18 years, non-emergency: not recommended DRYvax Kit: vial dried smallpox vaccine (1), 0.25 ml diluent in syringe (1), vented needle (1), 100 individually wrapped bifurcated needles (5 needles/strip, 20 strips) (polymyxin B sulfate, dihydrostreptomycin sulfate, chlortetracycline HCL, neomycin sulfate, glycerin, phenol)

Comment: DRYvax is a dried live vaccine with approximately 100 million *Infectious vaccinia* viruses (pock-forming units [pfu] per ml). Contact with immunosuppressed individuals should be avoided until the scab has separated from the skin (2 to 3 weeks) and/or a protective occlusive dressing covers the inoculation site. Scarification only. Do not inject IV, IM, or SC. Revaccination is recommended every 10 years.



Comment: RICE: Rest; Ice; Compression; Elevation.

Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298

Topical/Transdermal NSAIDs see Pain page 298

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

Topical Analgesic and Anesthetic Agents see page 488

# STATUS ASTHMATICUS

Inhaled Beta2-Agonists (Bronchodilators) see Asthma page 391 Oral Beta2-Agonists (Bronchodilators) see Asthma page 33 Inhaled Anticholinergics see Asthma page 27 Inhaled Anticholinergic/Beta2-Agonist Combination see Asthma page 31 Methylxanthines see Asthma page 33 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498

#### **EPINEPHRINE**

Pepinephrine (C)(G) Use 1:1000 solution; may repeat q 20-30 minutes as needed up to 3 doses; <2 years: 0.05-0.1 ml SC; 2-<6 years: 0.1 ml SC; 6-<12 years: 0.2 ml ≥12 years: 0.3-0.5 mg SC</p>

#### ANAPHYLAXIS EMERGENCY TREATMENT KITS

Pepinephrine (C) 0.01 mg/kg SC or IM in thigh; may repeat if needed; <15 kg: not recommended; 15-30 kg: 0.15 mg; ≥30 kg: 0.3 ml IM or SC in thigh; may repeat if needed</p>

AdrenaClick Autoinjector: 0.15, 0.3 mg (1 mg/ml; 2/carton) (sulfites)

Auvi-Q Autoinjector: 0.15, 0.3 mg (1 mg/ml; 2/carton w. 1 non-active training device) (sulfites)

EpiPen Autoinjector: 0.3 mg (epi 1:1000, 0.3 ml (2/carton) (sulfites)

Epi-E-Zpen Autoinjector: 0.15 mg (epi 1:2000, 0.3 ml (2/carton) (sulfites)

Twinject Autoinjector: 0.15, 0.3 mg (epi 1:1000, 2/carton) (sulfites)

Pepinephrine/chlorpheniramine (C) infants-2 years: 0.05-0.1 ml SC or IM; 2-<6 years: 0.15 ml SC or IM plus 1 PO tab chlorpheniramine; 6-<12 years: 0.2 ml SC or IM plus 2 chewable chlorpheniramine tabs; ≥12 years: epinephrine 0.3 ml SC or IM plus 4 chewable chlorpheniramine tabs</p>

Ana-Kit: 0.3 ml syringes of epi 1:1000 (2/carton) for self-injection plus 4 chlor 2 mg chew tabs

### STATUS EPILEPTICUS

Anticonvulsant Drugs see page 113

diazepam injectable (D)(IV) <1 months: see mfr pkg insert; 1 month-5 years: 0.2-0.5 mg IV q 2-5 minutes; max 5 mg; >5-<12 years: 1 mg IV q 2-5 minutes; max 10 mg; may repeat in 2-4 hours if needed; ≥12 years: initially 5-10 mg IV in large vein; may repeat q 10-15 minutes; max 30 mg; may repeat in 2-4 hours if needed; do not dilute; may administer IM if IV not accessible
</p>

Diastat Rectal gel delivery system: 2.5 mg

Diastat AcuDial Rectal gel delivery system: 10, 20 mg

Valium Injectable Vial: 5 mg/ml (10 ml); Amp: 5 mg/ml (2 ml); Prefilled syringe: 5 mg/ml (5 ml)

Valium Intensol Oral Solution Conc oral soln: 5 mg/ml (30 ml w. dropper) (alcohol 19%)

Valium Oral Solution Oral soln: 5 mg/5 ml (500 ml) (wintergreen spice)

lorazepam injectable (D)(IV) <18 years: not recommended; ≥18 years: administer
 4 mg IV over 2 minutes (dilute first); may repeat in 10-15 minutes; may give IM if
 needed (undiluted)
</p>

Ativan Injectable Vial: 2 mg/ml (1, 10 ml); Tubex: 2 mg/ml (0.5 ml); Cartridge: 2, 4 mg/ml (1 ml)

phenytoin (injectable) (D)(G) <12 years: 15-20 mg/kg IV, not to exceed 1-2 mg/kg/minute; ≥12 years: 10-15 mg/kg IV, not to exceed 50 mg/minute; follow with 100 mg orally or IV q 6-8 hours; do not dilute in IV fluid</p>

**Dilantin** *Vial*: 50 mg/ml (2, 5 ml); *Amp*: 50 mg/ml (2 ml)

**Comment**: Monitor *phenytoin* serum levels. Therapeutic serum level: 10-20 gm/ml. Side effects include gingival hyperplasia.



### STYE (HORDEOLUM)

#### OPHTHALMIC ANTI-INFECTIVES

- ► erythromycin ophthalmic ointment (B) 1 cm up to 6 times/day Ilotycin Ophthalmic Ointment Ophth oint: 5 mg/g (1/8 oz)
- erythromycin ophthalmic solution (B) initially 1-2 drops q 1-2 hours; may then increase dose interval

Isopto Cetamide Ophthalmic Solution Ophth soln: 15% (15 ml)

**p** gentamicin ophthalmic ointment (C) 1 cm bid-tid

Garamycin Ophthalmic Ointment Ophth oint: 3 mg/g (3.5 gm)

Genoptic Ophthalmic Ointment Ophth oint: 3 mg/g (3.5 gm)

Gentacidin Ophthalmic Ointment Ophth oint: 3 mg/g (3.5 gm)

- Polymyxin B/bacitracin ophthalmic ointment (C) apply 1/2 inch q 3-4 hours
   Polysporin Ophth oint: poly 10,000 U/bac 500 units per gm (3.75 gm)
- ▶ polymyxin B/bacitracin/neomycin ophthalmic ointment (C)(G) apply 1/2 inch q 3-4 hours

Neosporin Ophthalmic Ointment Ophth oint: poly B 10,000 U/bac 400 U/neo 3.5 mg/g (3.75 gm)

polymyxin B/neomycin/gramicidin ophthalmic solution (C) 1-2 drops 2-3 times q 1 hour; then 1-2 drops bid-qid x 7-10 days

Neosporin Ophthalmic Solution

Ophth soln: poly 10,000 U/neo 1.75 mg/gram 0.025 mg/ml (10 ml)

► sodium sulfacetamide ophthalmic solution and ointment (C)

Bleph-10 Ophthalmic Solution <2 years: not recommended; ≥2-<12 years: 1-2 drops q 2-3 hours during the day; ≥12 years: 2 drops q 4 hour x 7-14 days *Ophth soln*: 10% (2.5, 5, 15 ml) (benzalkonium chloride)

Bleph-10 Ophthalmic Ointment <2 years: not recommended; ≥2-<12 years: apply 1/4-1/3 inch qid and HS; ≥12 years: apply 1/2 inch qid and HS Ophth oint: 10% (3.5 gm) (phenylmercuric acetate)

## SUNBURN

- prednisone (C)(G) 10 mg gid x 4-6 days if severe and extensive
- Silver sulfadiazine (B)(G) <12 years: not established; ≥12 years: apply bid</li>
   Silvadene Crm: 1% (20 gm tube; 20, 50, 85, 400, 1,000 gm jar)
   Comment: silver sulfadiazine is contradicted in sulfa allergy, late pregnancy, within the first 2 months after birth, premature infants.

### SYPHILIS (TREPONEMA PALLIDUM)

Comment: The following treatment regimens for *T. pallidum* are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treat all sexual contacts. Consider testing for other STDs. *Penicillin G*, administered parenterally, is the preferred drug for treating all stages of syphilis. The preparation used (i.e., benzathine, aqueous procaine, or aqueous crystalline), the dosage, and the length of treatment depend on the stage and clinical manifestations of the disease. Combinations of *benzathine penicillin, procaine penicillin*, and oral penicillin preparations are not appropriate (e.g., Bicillin C-R). Screen serologically for syphilis early in pregnancy. There are no proven alternatives to penicillin for the treatment of syphilis during pregnancy. Pregnant patients who are allergic to penicillin should be desensitized and treated with *penicillin*. Sexual transmission of *T. pallidum* is thought to occur only when mucocutaneous syphilis at any stage should be evaluated clinically and serologically and treated with a recommended regimen according to CDC guidelines.

# PRIMARY, SECONDARY, AND EARLY LATENT SYPHILIS, <1 YEAR DURATION, ≥12 YEARS-OF-AGE

### Regimen 1

penicillin g (benzathine) 2.4 million units IM in a single dose

# LATE LATENT, LATENT SYPHILIS OF UNKNOWN DURATION, AND TERTIARY SYPHILIS. ≥12 YEARS-OF-AGE

#### Regimen 1

▶ penicillin g (benzathine) 2.4 million units IM in a single dose; 7.2 million units total administered in 3 divided doses of 2.4 million units each IM at 1 week intervals

#### REGIMEN: NEUROSYPHILIS. ≥12 YEARS-OF-AGE

#### Regimen 1

aqueous crystalline penicillin g 2.4 million units IM in a single dose 18-24 million units per day, administered as 3-4 million units IV every 4 hours or continuous IV infusion, for 10-14 days

## ALTERNATIVE REGIMEN: NEUROSYPHILIS, ≥12 YEARS-OF-AGE

### Regimen 1

▶ penicillin g (procaine) 2.4 million units IM once daily x 10-14 days plus probenecid 500 mg qid x 10-14 days

#### PRIMARY AND SECONDARY SYPHILIS IN HIV-INFECTED PERSONS

#### Regimen 1

penicillin g (benzathine) 2.4 million units IM in a single dose

#### LATENT SYPHILIS AMONG HIV-INFECTED PERSONS >12 YEARS-OF-AGE

Comment: Treatment is the same as for HIV-negative persons.

#### CONGENITAL SYPHILIS, ≥12 YEARS-OF-AGE

### Regimen 1

aqueous crystalline penicillin g 100,000-150,000 units/kg/day, administered as 50,000 units IV every 12 hours during the first 7 days of life and every 8 hours thereafter for a total of 10 days

#### **ALTERNATE REGIMENS, ≥12 YEARS-OF-AGE**

#### Regimen 1

penicillin g (benzathine) 50,000 units/kg IM in a single dose

#### Regimen 2

penicillin g (procaine) 50,000 units/kg/dose IM, administered in a single daily dose x 10 days

#### INFANTS AND CHILDREN <12 YEARS-OF-AGE

#### Regimen 1

aqueous crystalline penicillin g 200,000-300,000 units/kg/day, administered as 50,000 units IV every 12 hours during the first 7 days of life and every 4-6 hours thereafter for a total of 10 days

#### DRUG BRANDS AND DOSE FORMS

- aqueous crystalline penicillin g (B)(G)
- penicillin g (benzathine) (B)(G)

Bicillin L-A Cartridge-needle unit: 600,000 million units (1 ml); 1.2 million units (2 ml); 2.4 million units (4 ml)

penicillin g (procaine) (B)(G)

Bicillin C-R Cartridge-needle unit: 600,000 units (1 ml); 1.2 million units; (2 ml); 2.4 million units (4 ml)

▶ probenecid (B)(G)

Benemid Tab: 500\*mg; Cap: 500 mg



## TAPEWORM (CESTODE)

#### **ANTHELMINTICS**

**Comment**: Oral bioavailability of anthelmintics is enhanced when administered with a fatty meal (estimated fat content 40 g).

Description > albendazole (C) take with a meal; may crush and mix with food; may repeat in 3 weeks if needed; <2 years: 200 mg bid x 7 days; 2-12 years: 400 mg once daily x 7 days; >12 years: 400 mg bid x 7 days;

Albenza Tab: 200 mg

**Comment**: *albendazole* is a broad-spectrum benzimidazole carbamate anthelmintic

praziquantel (B) take with a meal; may crush and mix with food; <4 years: not established; ≥4 years: 5-10 mg/kg as a single dose</p>

Biltricide Tab: 600\*\*mg film-coat (cross-scored for half or quarter dose)
Comment: Therapeutically effective levels of Biltricide may not be achieved when administered concomitantly with strong P450 inducers, such as rifampin. Females should not breastfeed on the day of Biltricide treatment and during the subsequent 72 hours. Use caution with hepatosplenic patients who have moderate to severe liver impairment (Child-Pugh class B and C).

nitazoxanide (B) take with a meal; may crush and mix with food; <12 months: not recommended; ≥12 months: treat q 12 hours x 3 days; <11 years: [use suspension]; 12-47 months: 5 ml; 4-11 years: 10 ml; >11 years: [use tab or suspension] 500 mg Alinia Tab: 500 mg; Oral susp: 100 mg/5 ml (60 ml)



## TARDIVE DYSKINESIA

Comment: Tardive dyskinesia is a treatable, albeit irreversible, neurological disorder characterized by repetitive involuntary movements, usually of the jaw, lips and tongue, such as grimacing, sticking out the tongue and smacking the lips. Some affected people also experience involuntary movement of the extremities or difficulty breathing. This condition is most often an adverse side effect associated with the older "typical" antipsychotic drugs. Risk is decreased with the newer "atypical" antipsychotic drugs.

## **VESICULAR MONOAMINE TRANSPORTER 2 (VMAT2) INHIBITOR**

valbenazine (NE) <18 years: not established; ≥18 years: initially 40 mg once daily; after one week, increase to the recommended 80 mg once daily; take with or
</p>

without food; recommended dose for patients with moderate <u>or</u> severe hepatic impairment is 40 mg once daily; consider dose reduction based on tolerability in known CYP2D6 poor metabolizers; concomitant use of strong CYP3A4 inducers is not recommended; avoid concomitant use of MAOIs

Ingrezza Cap: 40 mg

Comment: Safety and effectiveness of Ingrezza have not been established in pediatric patients. No dose adjustment is required for elderly patients. The limited available data on Ingrezza use in pregnant women are insufficient to inform a drug-associated risk. There is no information regarding the presence of Ingrezza or its metabolites in human milk, the effects on the breastfed infant, or the effects on milk production. However, women are advised not to breastfeed during treatment and for 5 days after the final dose. To report suspected adverse reactions, contact Neurocrine Biosciences, Inc. at 877-641-3461 or FDA at 1-800-FDA-1088 or www. fda.gov/medwatch.



## TEMPOROMANDIBULAR JOINT (TMJ) DISORDER

Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Topical/Transdermal NSAIDs see Pain page 298 Parenteral Corticosteroids see page 499 Oral Corticosteroids see page 498 Topical Analgesic and Anesthetic Agents see page 488



# TESTOSTERONE DEFICIENCY, HYPOTESTOSTERONEMIA, HYPOGONADISM

Comment: testosterone is contraindicated in male breast cancer and prostate cancer. Testosterone replacement therapy is indicated in males with primary hypogonadism (congenital or acquired due to cryptorchidism, bilateral torsion, orchitis, vanishing testis syndrome, or orchidectomy), or hypogonadotropic hypogonadism (congenital or acquired), and delayed puberty not secondary to a pathological disorder (x-ray of the hand and wrist to determine bone age should be obtained every 6 months to assess the effect of treatment on the epiphyseal centers).

#### ORAL ANDROGENS

- ▶ fluoxymesterone (X)(III) Hypogonadism: <12 years: use by specialist only; Puberty: 5-20 mg once daily; Delayed puberty: use low dose and limit duration to 4-6 months Halotestin Tab: 2\*, 5\*, 10\*mg (tartrazine)</p>
- ▶ methyltestosterone (X)(III) Hypogonadism: <12 years: use by specialist only; Puberty: usually 10-50 mg once daily; Delayed puberty: use low dose and limit duration to 4-6 months

Android Cap: 10 mg Methitest Tab: 10\*mg Testred Cap: 10 mg ► testosterone (X)(III) <18 years: not recommended; ≥18 years: 30 mg q 12 hours to gum region, just above the incisor tooth on either side of the mouth; hold system in place for 30 seconds; rotate sites with each application

Striant *Buccal tab*: 30 mg (6 blister pcks; 10 buccal systems/blister pck)

Comment: Serum total *testosterone* concentrations may be checked 4 to 12 weeks after initiating treatment with Striant. To capture the maximum serum concentration, an early morning sample (just prior to applying the AM dose) is recommended.

#### TOPICAL ANDROGENS

Comment: Topical androgens are not recommended under 18 years-of-age. Wash hands after application. Allow solution to dry before it touches clothing. Do not wash site for at least 2 hours after application. Pregnant and nursing females, and children, must avoid skin contact with application sites. If there is contact, wash the area as soon as possible with soap and water.

#### ► testosterone (X)(III)

AndroGel 1% <18 years: not recommended;  $\geq$ 18 years: initially apply 5 gm once daily in the AM to clean, dry, intact skin of the shoulders, upper arms, and/or abdomen; do not apply to scrotum; may increase to 7.5 gm/day and then to 10 gm/day if needed

Gel: 2.5, 5 gm (30 pkts); 75 gm (60 metered 1.25 gm doses)

AndroGel 1.62% < 18 years: not recommended;  $\geq 18$  years: initially apply 2.5 gm (2 pump actuations) once daily in the AM to clean, dry, skin of the shoulders and upper arms intact skin of the upper arms; do not apply to abdomen or genitals; may adjust dose between 1 and 4 pump actuations based on the predose morning serum testosterone concentration at approximately 14 and 28 days after starting treatment or adjusting dose

Gel: 2.25 mg pump actuation (75 g, 60 metered 1.25 gm doses)

Axiron <18 years: not recommended; ≥18 years: apply to clean dry intact skin of the axillae; do not apply to the scrotum, penis, abdomen, shoulders, or upper arms; initially apply 60 mg (30 mg/axilla) once daily in the AM; adjust dose based on serum testosterone concentration 2 to 8 hours after applying and at least 14 days after starting therapy or following dose adjustment; may increase dose in 30 mg increments if serum testosterone <300 ng/dL up to 120 mg; reduce dose to 30 mg if levels >1050 ng/dL; discontinue if serum testosterone remains at >1050 ng/dL.

Soln: 30 mg/1.5 ml pump actuation (90 ml; 60 metered actuations) (alcohol, latex-free)

Fortesta (G) <18 years: not recommended; ≥18 years: initially 40 mg of testosterone (4 pump actuations) applied to the thighs once daily in the AM; may adjust between 10 mg minimum and 70 mg maximum.

Gel: 10 mg/0.5 gm pump actuation (120 actuations)

Comment: The Fortesta dose should be based on the serum *testosterone* concentration 2 hours after applying Fortesta and at approximately 14 days and 35 days after starting treatment or following dose adjustment. Dose adjustment criteria: ≤500 ng/dL, increase daily dose by 10 mg; 500-≤1250 ng/dL, no change; 1250-≤2500 ng/dL, decrease daily dose by 10 mg; ≥2500 ng/dL, decrease daily dose by 20 mg.

*Gel*: 10 mg (0.5 gm)/pump actuation (60 g; 120 metered dose actuations) (ethanol)

Testim (G) <18 years: not recommended; ≥18 years: initially apply 5 gm once daily in the AM to clean, dry, intact skin of the shoulders <u>and/or</u> upper arms; do not apply to the genitals <u>or</u> abdomen; may increase to 10 gm after 2 weeks

Gel: 1%, clear, hydroalcoholic (5 mg/5 g, 5 gm single-use tube)

Vogelxo Gel (G) <18 years: not recommended; ≥18 years: 1% initially apply 5 gm once daily in the AM to clean, dry, intact skin of the shoulders, upper arms, and/or abdomen; do not apply to scrotum; may increase to 7.5 gm/day and then to 10 gm/day if needed

Gel. 5 gm/pkt (30 pkts); 5 gm/tube (30 tubes); metered dose actuations (2 x 75 g, 1.25 gm actuation)

#### INTRANASAL ANDROGENS

testosterone (nasal gel) (X)(III) <18 years: not established; ≥18 years: initially one pump actuation each nostril (33 mg) 3 x/day, at least 6-8 hours apart, at the same times each day max: 6 pump actuations/day
</p>

NatSteel: 5.5 mg/actuation, metered dose pump (11 g, 60 actuations)

#### TRANSDERMAL ANDROGEN

▶ testosterone (X)(III)

Androderm <15 years: not recommended; ≥15 years: initially apply 4 mg nightly at approximately 10 PM to clean, dry area of the arm, back, or upper buttocks; leave on x 24 hours; may increase to 7.5 mg or decrease to 2.5 mg based on confirmed AM serum testosterone concentrations

Transdermal patch: 2, 4 mg/24 hr



## TETANUS (CLOSTRIDIUM TETANI)

#### **PROPHYLAXIS**

See Childhood Immunizations page 473

#### POSTEXPOSURE PROPHYLAXIS IN PREVIOUSLY NON-IMMUNIZED PERSONS

tetanus immune globulin, human (C) <7 years: not recommended; ≥7 years: 250 mg deep IM in a single dose
</p>

BayTET, HyperTET Vial: 250 unit single dose; Prefilled syringe: 250 units

tetanus toxoid vaccine (C) 0.5 ml IM x 3 dose series

Vial: 5 Lf units/0.5 ml (0.5, 5 ml); Prefilled syringe: 5 Lf units/0.5 ml (0.5 ml) Comment: Dose of BayTET/HyperTET S/D is calculated as 4 units/kg. However, it may be advisable to administer the entire contents of the syringe of BayTET/HyperTET S/D (250 units) regardless of the child's size, since theoretically the same amount of toxin will be produced in the child's body by the infecting tetanus organism as it will in an adult's body. At the same time but in a different extremity and with a different syringe, administer Diphtheria and Tetanus Toxoids and Pertussis Vaccine Adsorbed (DTP) or Diphtheria and Tetanus Toxoids Adsorbed (For Pediatric Use) (DT), if pertussis vaccine is contraindicated, should be administered per mfr pkg insert. Tetanus immune globulin may interact with live viral vaccines such as measles, mumps, rubella, and polio. It is also

unknown if <code>BayTET/HyperTET</code> can cause fetal harm when administered to a pregnant female or can affect reproduction capacity. The single injection of tetanus toxoid only initiates the series for producing active immunity in the recipient. The patient will need further toxoid injections in 1 month and 1 year; otherwise the active immunization series is incomplete. If a contraindication to using tetanus toxoid-containing preparations exists for a person who has not completed a primary series of tetanus toxoid immunization, and that person has a wound that is neither clean nor minor, only passive immunization should be administered using tetanus immune globulin.



## THREADWORM (STRONGYLOIDIDES STERCORALIS)

#### **ANTHELMINTICS**

**Comment**: Oral bioavailability of anthelmintics is enhanced when administered with a fatty meal (estimated fat content 40 g).

- ivermectin (C) take with water; chew or crush and mix with food; may repeat in 3 months if needed; <15 kg: not recommended; ≥15 kg: 200 mcg/kg as a single dose Stromectol Tab: 3, 6\*mg</p>
- > mebendazole (C) take with a meal; chew or crush and mix with food; may repeat in 3 weeks if needed; <2 years: not recommended; ≥2 years: 100 mg bid x 3 days Emverm Chew tab: 100 mg

Vermox (G) Chew tab: 100 mg

▶ pyrantel pamoate (C) take with a meal; may open capsule and sprinkle or mix with food; treat x 3 days; may repeat in 2-3 weeks if needed; treat x 3 days; 11 mg/kg/dose; max 1 gm/dose; <25 lb: not recommended; 25-37 lb: 1/2 tsp/dose; 38-62 lb: 1 tsp/dose; 63-87 lb: 1 tsp/dose; 88-112 lb: 2 tsp/dose; 113-137 lb: 2 tsp/dose; 138-162 lb: 3 tsp/dose; 163-187 lb: 3 tsp/dose; >187 lb: 4 tsp/dose

Antiminth Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (60 ml)

Pin-X Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (30 ml)

by thiabendazole (C) take with a meal; may crush and mix with food; treat x 7 days; <30 lb: consult mfr pkg insert; ≥30 lb: 25 mg/kg/dose bid with meals; 30-50 lb: 250 mg bid with meals; >50 lb: 10 mg/lb/dose bid with meals; max 1.5 gm/dose; max 3 g/day

Mintezol Chew tab: 500\*mg (orange); Oral susp: 500 mg/5 ml (120 ml) (orange) Comment: thiabendazole is not for prophylaxis. May impair mental alertness. May not be available in the US.



## **TINEA CAPITIS**

**Comment**: Tinea capitis must be treated with an oral antifungal.

#### FOR SEVERE KERION PRURITUS

▶ prednisone (C) 1 mg/kg/day for 7-14 days See Oral Corticosteroids page 498

#### SYSTEMIC ANTIFUNGALS

Grifulvin V Tab: 250, 500 mg; Oral susp: 125 mg/5 ml (120 ml; alcohol 0.02%)

**priseofulvin, ultramicrosize** (C)(G) <2 years: not recommended; 2-12 years: 3.3 mg/lb/day in a single or divided doses x 4-6 weeks or longer; >12 years: 375 mg/day in a single or divided doses x 4-6 weeks or longer

Gris-PEG Tab: 125, 250 mg

Comment: *griseofulvin* should be taken with fatty foods (e.g., milk, ice cream). Liver enzymes should be monitored.

ketoconazole (C)(G) <2 years: not recommended; ≥2 years-12 years: 3.3-6.6 mg/ kg once daily x 4 weeks; >12 years: initially 200 mg once daily; max 400 mg/day x 4 weeks

Nizoral Tab: 200 mg

Comment: Caution with ketoconazole due to potential for hepatotoxicity.

## | TII

## **TINEA CORPORIS (RINGWORM)**

#### TOPICAL ANTI-FUNGALS

butenafine (C)(G) <12 years: not recommended; ≥12 years: apply bid x 1 week or once daily x 4 weeks</p>

Lotrimin Ultra (OTC) Crm: 1% (12, 24 gm)

Mentax Crm: 1% (15, 30 gm)

**Comment**: *butenafine* is a benzylamine, not an azole. Fungicidal activity continues for at least 5 weeks after last application.

ciclopirox (B)

**Loprox Cream** <10 years: not recommended; ≥10 years: apply bid; max 4 weeks *Crm*: 0.77% (15, 30, 90 gm)

Loprox Lotion <10 years: not recommended; ≥10 years: apply bid; max 4 weeks Lotn: 0.77% (30, 60 ml)

Loprox Gel <16 years: not recommended; ≥16 years: apply bid; max 4 weeks Gel: 0.77% (30, 45 gm)

clotrimazole (B)(G) apply to affected area bid x 14 days

**Lotrimin** *Crm*: 1% (15, 30, 45 gm)

**Lotrimin AF (OTC)** Crm: 1% (12 gm); Lotn: 1% (10 ml); Soln: 1% (10 ml)

econazole (C) apply once daily x 14 days

**Spectazole** *Crm*: 1% (15, 30, 85 gm)

▶ ketoconazole (C) apply to affected area bid x 14 days

Nizoral Cream Crm: 2% (15, 30, 60 gm)

► luliconazole (C) <18 years: not recommended; ≥18 years: apply to affected area and 1 inch into the immediate surrounding area(s) once daily

Luzu Cream 1% Crm: 1% (30, 60 gm)

miconazole 2% (C) <12 years: not recommended; ≥12 years: apply qd-bid x 2 weeks Lotrimin AF Spray Liquid (OTC) Spray liq: 2% (113 gm) (alcohol 17%)

Lotrimin AF Spray Powder (OTC) Spray pwdr: 2% (90 gm) (alcohol 10%)

Monistat-Derm Crm: 2% (1, 3 oz); Spray liq: 2% (3.5 oz); Spray pwdr: 2% (3 oz)

➤ naftifine (B)(G)

Naftin Cream <12 years: not recommended; ≥12 years: apply once daily x 14 days *Crm*: 1% (15, 30, 60 gm)

Naftin Gel apply <12 years: not recommended; ≥12 years: bid x 14 days Gel: 1% (20, 40, 60 gm)

oxiconazole nitrate (B)(G) <12 years: not recommended; ≥12 years: apply qd-bid x
 2 weeks
</p>

Oxistat Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 ml)

Sulconazole (C) <12 years: not recommended; ≥12 years: apply qd-bid x 3 weeks Exelderm Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 mg)

► terbinafine (B)(G)

Lamisil Cream (OTC) <12 years: not recommended; ≥12 years: apply to affected and surrounding area qd-bid x 1-4 weeks until significantly improved *Crm*: 1% (15, 30 gm)

**Lamisil AT Cream (OTC)** apply to affected and surrounding area qd-bid x 1-4 weeks until significantly improved

Crm: 1% (15, 30 gm)

**Lamisil Solution (OTC)** <12 years: not recommended;  $\geq$ 12 years: apply to affected and surrounding area once daily x 1 week

Soln: 1% (30 ml spray bottle)

#### TOPICAL ANTIFUNGAL/STEROID COMBINATION

Clotrimazole/betamethasone (C)(G) <12 years: not recommended; ≥12 years: apply bid x 2 weeks; max 4 weeks

Lotrisone Crm: clotrim 1 mg/beta 0.5 mg (15, 45 gm); Lotn: clotrim 1 mg/beta 0.5 mg (30 ml)

#### SYSTEMIC ANTIFUNGALS

priseofulvin, ultramicrosize (C)(G) <2 years: not recommended; 2-12 years: 3.3 mg/
 lb/day in a single or divided doses x 4-6 weeks or longer; >12 years: 375 mg/day in a
 single or divided doses x 4-6 weeks or longer

Gris-PEG Tab: 125, 250 mg

Comment: *griseofulvin* should be taken with fatty foods (e.g., milk, ice cream). Liver enzymes should be monitored.

ketoconazole (C)(G) <2 years: not recommended; ≥2 years-12 years: 3.3-6.6 mg/kg once daily x 4 weeks; >12 years: initially 200 mg once daily; max 400 mg/day x 4 weeks Nizoral Tab: 200 mg

**Comment**: Caution with *ketoconazole* due to potential for hepatotoxicity.

## | T

## **TINEA CRURIS (JOCK ITCH)**

#### TOPICAL ANTIFUNGALS

butenafine (B)(G) <12 years: not recommended; ≥12 years: apply bid x 1 week or once daily x 4 weeks</p>

**Lotrimin Ultra (C)(OTC)** *Crm*: 1% (12, 24 gm)

Mentax Crm: 1% (15, 30 gm)

**Comment**: *butenafine* is a benzylamine, not an azole. Fungicidal activity continues for at least 5 weeks after last application.

ciclopirox (B)

Loprox Cream <10 years: not recommended; ≥10 years: apply bid; max 4 weeks Crm: 0.77% (15, 30, 90 gm)

**Loprox Lotion** <10 years: not recommended; ≥10 years: apply bid; max 4 weeks *Lotn*: 0.77% (30, 60 ml)

**Loprox Gel** <16 years: not recommended; ≥16 years: apply bid; max 4 weeks *Gel*: 0.77% (30, 45 gm)

clotrimazole (B)(G) apply to affected area bid x 7 days

Lotrimin Crm: 1% (15, 30, 45 gm)

Lotrimin AF (OTC) Crm: 1% (12 gm); Lotn: 1% (10 ml); Soln: 1% (10 ml)

► econazole (C) apply once daily x 2 weeks Spectazole Crm: 1% (15, 30, 85 gm)

ketoconazole (C) apply to affected area bid x 2 weeks

Nizoral Cream Crm: 2% (15, 30, 60 gm)

▶ luliconazole (C) <18 years: not recommended; ≥18 years: apply to affected area and 1 inch into the immediate surrounding area(s) once daily

Luzu Cream 1% Crm: 1% (30, 60 gm)

miconazole 2% (C)(G) apply qd-bid x 2 weeks

Lotrimin AF Spray Liquid (OTC) Spray liq: 2% (113 gm) (alcohol 17%) Lotrimin AF Spray Powder (OTC) Spray pwdr: 2% (90 gm) (alcohol 10%) Monistat-Derm Crm: 2% (1, 3 oz); Spray liq: 2% (3.5 oz); Spray pwdr: 2% (3 oz)

naftifine (B)(G)

Naftin Cream <12 years: not recommended; ≥12 years: apply once daily x 2 weeks

Crm: 1% (15, 30, 60 gm)

Naftin Gel <12 years: not recommended; ≥12 years: apply bid x 2 weeks Gel: 1% (20, 40, 60 gm)

oxiconazole nitrate (B)(G)apply qd-bid x 2 weeks

Oxistat Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 ml)

Sulconazole (C) <12 years: not recommended; ≥12 years: apply qd-bid x 3 weeks Exelderm Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 mg)

**▶** terbinafine (B)(G)

Lamisil Cream (OTC) <12 years: not recommended;  $\geq$ 12 years: apply bid x 1-4 weeks

Crm: 1% (15, 30 gm)

Lamisil AT Cream (OTC) <12 years: not recommended; ≥12 years: apply to affected and surrounding area qd-bid x 1-4 weeks until significantly improved *Crm*: 1% (15, 30 gm)

**Lamisil Solution (OTC)** <12 years: not recommended;  $\geq$ 12 years: apply to affected and surrounding area once daily x 1 week

Soln: 1% (30 ml spray bottle)

tolnaftate (C)(OTC)(G) <2 years: not recommended; ≥2 years: apply sparingly bid x 2-4 weeks</p>

**Tinactin** *Crm*: 1% (15, 30 gm); *Pwdr*: 1% (45, 90 gm); *Soln*: 1% (10 ml); *Aerosol liq*: 1% (4 oz); *Aerosol pwdr*: 1% (3.5, 5 oz)

➤ undecylenate acid (NE) apply bid x 4 weeks

Desenex (OTC) Pwdr: 25% (1.5, 3 oz); Spray pwdr: 25% (2.7 oz); Oint: 25% (0.5, 1 oz)

#### TOPICAL ANTIFUNGAL/ANTI-INFLAMMATORY AGENTS

Colorimazole/betamethasone (C)(G) <12 years: not recommended; ≥12 years: apply bid x 4 weeks; max 4 weeks
</p>

Crm: clotrim 10 mg/beta 0.5 mg (15, 45 gm); Lotn: clotrim 10 mg/beta 0.5 mg (30 ml)

#### SYSTEMIC ANTIFUNGALS

griseofulvin, microsize (C)(G) <12 years: <30 lb: 5 mg/lb/day; 30-50 lb: 125-250 mg/day; >50 lb: 250-500 mg/day; 5 mg/lb/day x 4-6 weeks or longer; see page 568 for dose by weight table; ≥12 years: 500 mg once daily x 4-6 weeks or longer; max 1 gm/day

Grifulvin V Tab: 250, 500 mg; Oral susp: 125 mg/5 ml (120 ml; alcohol 0.02%)

priseofulvin, ultramicrosize (C)(G) <2 years: not recommended; 2-12 years: 3.3 mg/
 lb/day in a single or divided doses x 4-6 weeks or longer; >12 years: 375 mg/day in a
 single or divided doses x 4-6 weeks or longer

Gris-PEG Tab: 125, 250 mg

Comment: *griseofulvin* should be taken with fatty foods (e.g., milk, ice cream). Liver enzymes should be monitored.

ketoconazole (C)(G) <2 years: not recommended; ≥2 years-12 years: 3.3-6.6 mg/ kg once daily x 4 weeks; >12 years: initially 200 mg once daily; max 400 mg/day x 4 weeks

Nizoral Tab: 200 mg

Comment: Caution with ketoconazole due to potential for hepatotoxicity.

## TINEA PEDIS (ATHLETE'S FOOT)

#### TOPICAL ANTIFUNGALS

butenafine (B)(G) <12 years: not recommended; ≥12 years: apply bid x 1 week or once daily x 4 weeks</p>

Lotrimin Ultra (C)(OTC) Crm: 1% (12, 24 gm)

Mentax Crm: 1% (15, 30 gm)

**Comment**: *butenafine* is a benzylamine, not an azole. Fungicidal activity continues for at least 5 weeks after last application.

- **Burrows solution (NE)** wet dressings
- ciclopirox (B)

**Loprox Cream** <10 years: not recommended; ≥10 years: apply bid; max 4 weeks *Crm*: 0.77% (15, 30, 90 gm)

**Loprox Lotion** <10 years: not recommended; ≥10 years: apply bid; max 4 weeks *Lotn*: 0.77% (30, 60 ml)

**Loprox Gel** <16 years: not recommended; ≥16 years: apply bid; max 4 weeks *Gel*: 0.77% (30, 45 gm)

Colorimazole (C)(G) <12 years: not recommended; ≥12 years: apply bid to affected area x 4 weeks
</p>

Desenex Crm: 1% (0.5 oz)

Lotrimin *Crm*: 1% (15, 30, 45, 90 gm); *Lotn*: 1% (30 ml); *Soln*: 1% (10, 30 ml) Lotrimin AF (OTC) *Crm*: 1% (15, 30, 45, 90 gm); *Lotn*: 1% (20 ml); *Soln*: 1% (20 ml)

> econazole (C) apply once daily x 4 weeks

Spectazole Crm: 1% (15, 30, 85 gm)

► *ketoconazole* (C) apply to affected area bid x 4 weeks

Nizoral Cream Crm: 2% (15, 30, 60 gm)

▶ luliconazole (C) <18 years: not recommended; ≥18 years: apply to affected area and 1 inch into the immediate surrounding area(s) once daily

Luzu Cream 1% Crm: 1% (30, 60 gm)

miconazole 2% (C)(G) apply bid x 4 weeks

Lotrimin AF Spray Liquid (OTC) Spray liq: 2% (113 gm) (alcohol 17%)

Lotrimin AF Spray Powder (OTC) Spray pwdr: 2% (90 g; alcohol 10%) Monistat-Derm Crm: 2% (1, 3 oz); Spray lig: 2% (3.5 oz); Spray pwdr: 2% (3 oz)

naftifine (B)(G)

Naftin Cream <12 years: not recommended; ≥12 years: apply once daily x 4 weeks

Crm: 1% (15, 30, 60 gm)

Naftin Gel <12 years: not recommended; ≥12 years: apply bid x 4 weeks Gel: 1% (20, 40, 60 gm)

> oxiconazole nitrate (B)(G)apply qd-bid x 4 weeks

Oxistat Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 ml)

- Sertaconazole (C) <12 years: not recommended; ≥12 years: apply qd-bid x 4 weeks Ertaczo Crm: 2% (15, 30 gm)
- Sulconazole (C) <12 years: not recommended; ≥12 years: apply qd-bid x 4 weeks Exelderm Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 mg)

terbinafine (B)(G)

Lamisil Cream (OTC) <12 years: not recommended;  $\geq$ 12 years: apply bid x 1-4 weeks

Crm: 1% (15, 30 gm)

Lamisil AT Cream (OTC) <12 years: not recommended; ≥12 years: apply to affected and surrounding area qd-bid x 1-4 weeks until significantly improved *Crm*: 1% (15, 30 gm)

**Lamisil Solution (OTC)** <12 years: not recommended;  $\geq$ 12 years: apply to affected and surrounding area bid x 1 week

Soln: 1% (30 ml spray bottle)

tolnaftate (C)(OTC)(G) <2 years: not recommended; ≥2 years: apply sparingly bid x 2-4 weeks</p>

Tinactin Crm: 1% (15, 30 gm); Pwdr: 1% (45, 90 gm); Soln: 1% (10 ml); Aerosol liq: 1% (4 oz); Aerosol pwdr: 1% (3.5, 5 oz)

#### TOPICAL ANTIFUNGAL/ANTI-INFLAMMATORY COMBINATION

► clotrimazole/betamethasone (C)(G) 12 years: not recommended; ≥12 years: apply bid x 4 weeks; max 4 weeks

**Lotrisone** *Crm: clotrim* 1 mg/*beta* 0.5 mg (15, 45 gm); *Lotn: clotrim* 1 mg/*beta* 0.5 mg (30 ml)

#### SYSTEMIC ANTIFUNGALS

Grifulvin V Tab: 250, 500 mg; Oral susp: 125 mg/5 ml (120 ml) (alcohol 0.02%)

Gris-PEG Tab: 125, 250 mg

Comment: *griseofulvin* should be taken with fatty foods (e.g., milk, ice cream). Liver enzymes should be monitored.

ketoconazole (C)(G) <2 years: not recommended; ≥2 years-12 years: 3.3-6.6 mg/ kg once daily x 4 weeks; >12 years: initially 200 mg once daily; max 400 mg/day x 4 weeks

Nizoral Tab: 200 mg

Comment: Caution with *ketoconazole* due to potential for hepatotoxicity.

## TINEA VERSICOLOR

Comment: Resolution may take 3-6 months.

#### TOPICAL ANTIFUNGALS

butenafine (G) <12 years: not recommended; ≥12 years: apply once daily x 2 weeks Lotrimin Ultra (C)(OTC) Crm: 1% (12, 24 gm)

Mentax (B) Crm: 1% (15, 30 gm)

**Comment**: *butenafine* is a benzylamine, not an azole. Fungicidal activity continues for at least 5 weeks after last application.

ciclopirox (B)

**Loprox Cream** <10 years: not recommended; ≥10 years: apply bid; max 4 weeks *Crm*: 0.77% (15, 30, 90 gm)

Loprox Lotion <10 years: not recommended; ≥10 years: apply bid; max 4 weeks Lotn: 0.77% (30, 60 ml)

**Loprox Gel** <16 years: not recommended; ≥16 years: apply bid; max 4 weeks *Gel*: 0.77% (30, 45 gm)

clotrimazole (B)(G) apply bid x 7 days

Lotrimin Crm: 1% (15, 30, 45 gm)

Lotrimin AF (OTC) Crm: 1% (12 gm); Lotn: 1% (10 ml); Soln: 1% (10 ml)

► econazole (C) apply once daily x 2 weeks

Spectazole *Crm*: 1% (15, 30, 85 gm)

➤ miconazole 2% (C)(G) apply once daily x 2 weeks

Lotrimin AF Spray Liquid (OTC) Spray liq: 2% (113 gm) (alcohol 17%)

Lotrimin AF Spray Powder (OTC) Spray pwdr: 2% (90 gm) alcohol 10%) Monistat-Derm Crm: 2% (1, 3 oz); Spray liq: 2% (3.5 oz); Spray pwdr: 2% (3 oz)

ketoconazole (C) apply to affected area once daily x 2 weeks

Nizoral Cream Crm: 2% (15, 30, 60 gm)

Nizoral Shampoo lather into area and leave on 5 minutes x 1 application *Shampoo*: 2% (4 oz)

oxiconazole nitrate (B)(G) apply once daily x 2 weeks

Oxistat Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 ml)

selenium sulfide shampoo (C)(G) apply after shower, allow to dry, leave on overnight; then scrub off vigorously in AM; repeat in 1 week and again q 3 months until resolution occurs

Selsun Blue Shampoo: 1% (120, 210, 240, 330 ml); 2.5% (120 ml)

- sulconazole (C) <12 years: not recommended; ≥12 years: apply qd-bid x 3 weeks
   Exelderm Crm: 1% (15, 30, 60 gm); Lotn: 1% (30 mg)
  </p>
- ► terbinafine (B) <12 years: not recommended; ≥12 years: apply bid to affected and surrounding area x 1 week

Lamisil Solution (OTC) Soln: 1% (30 ml spray bottle)

#### **ORAL ANTIFUNGALS**

ketoconazole (C)(G) <2 years: not recommended; ≥2 years-12 years: 3.3-6.6 mg/ kg once daily x 4 weeks; >12 years: initially 200 mg once daily; max 400 mg/day x 4 weeks

Nizoral Tab: 200 mg

Comment: Caution with ketoconazole due to potential for hepatotoxicity.



# TOBACCO DEPENDENCE/NICOTINE WITHDRAWAL SYNDROME

#### NON-NICOTINE PRODUCTS

## Alpha<sub>4</sub>-Beta<sub>2</sub> Nicotinic Acetylcholine Receptor Partial Agonist

➤ varenicline (C)

Chantix <18 years: not recommended;  $\geq$ 18 years: set target quit date; begin therapy 1 week prior to target quit date; take after eating with a full glass of water; initially 0.5 mg once daily for 3 days; then 0.5 mg bid x 4 days; then 1 mg bid; treat x 12 weeks; may continue treatment for 12 more weeks

Tab: 0.5, 1 mg; Starting Month Pak: 0.5 mg x 11 tabs + 1 mg x 42 tabs; Continuing Month Pak: 1 mg x 56 tabs

Comment: Caution with Chantix due to potential risk for anxiety or suicidal ideation.

#### **AMINOKETONES**

bupropion HBr (C)(G)

Aplenzin <18 years: not recommended; ≥18 years: initially 100 mg bid for at least 3 days; may increase to 375 or 400 mg/day after several weeks; then after at least 3 more days, 450 mg in 4 divided doses; max 450 mg/day, 174 mg/single dose

Tab: 174, 348, 522 mg

bupropion HCl (B)(G)

Forfivo XL do not use for initial treatment; use immediate-release bupropion forms for initial titration; switch to Forfivo XL 450 mg once daily when total dose/day reaches 450 mg; may switch to Forfivo XL when total dose/day reaches 300 mg for 2 weeks and patient needs 450 mg/day to reach therapeutic target; swallow whole, do not crush or chew

Tab: 450 mg ext-rel

Wellbutrin <18 years: not recommended; ≥18 years: initially 100 mg bid for at least 3 days; may increase to 375 or 400 mg/day after several weeks; then after at least 3 more days, 450 mg in 4 divided doses; max 450 mg/day, 150 mg/single dose

Tab: 75, 100 mg

Wellbutrin SR <18 years: not recommended; ≥18 years: initially 150 mg in AM for at least 3 days; may increase to 150 mg bid if well tolerated; usual dose 300 mg/day; max 400 mg/day

Tab: 100, 150 mg sust-rel

Wellbutrin XL <18 years: not recommended; ≥18 years: initially 150 mg in AM for at least 3 days; increase to 150 mg bid if well tolerated; usual dose 300 mg/day; max 400 mg/day

Tab: 150, 300 mg sust-rel

Zyban <18 years: not recommended; ≥18 years: 150 mg once daily x 3 days; then 150 mg bid x 7-12 weeks; max 300 mg/day

Tab: 150 mg sust-rel

**Comment**: Contraindications to *bupropion* include seizure disorder, disorder, concurrent MAOI and alcohol use. Smoking should be discontinued after the 7th day of therapy with *bupropion*. Avoid bedtime dose.

#### TRANSDERMAL NICOTINE SYSTEMS (D)

Habitrol (OTC) <12 years: not recommended; ≥12 years: initially one 21 mg/24 hour patch/day x 4-6 weeks; then one 14 mg/24 hour patch/day x 2-4 weeks; then one 7 mg/24 hour patch/day x 2-4 weeks; then discontinue

Transdermal patch: 7, 14, 21 mg/24 hour

Nicoderm CQ (OTC) <12 years: not recommended;  $\geq$ 12 years: initially one 21 mg/24 hour patch/day x 6 weeks, then one 14 mg/24 hour patch/day x 2 weeks; then one 7 mg/24 hour patch/day x 2 weeks

Transdermal patch: 7, 14, 21 mg/24 hour

Comment: Nicoderm CQ is available as a clear patch.

Nicotrol Step-down Patch (OTC) <12 years: not recommended; ≥12 years: 1 patch/day x 6 weeks

*Transdermal patch*: 5, 10, 15 mg/16 hour (7/pck)

Nicotrol Transdermal (OTC) <12 years: not recommended; ≥12 years: 1 patch/day x 6 weeks

*Transdermal patch:* 15 mg/16 hour (7/pck)

Prostep <12 years: not recommended;  $\geq$ 12 years: initially one 22 mg/24 hour patch/day x 4-8 weeks; then discontinue or one 11 mg/24 hour patch/day x 2-4 additional weeks

Transdermal patch: 11, 22 mg/24 hour (7/pck)

#### NICOTINE GUM

nicotine polacrilex (D) <12 years: not recommended; ≥12 years: chew one piece of gum slowly and intermittently over 30 minutes q 1-2 hours x 6 weeks; then q 2-4 hours x 3 weeks; then q 4-8 hours x 3 weeks; max 24 pieces/day; 2 mg if smoked <25 cigarettes/day; 4 mg if smoked >24 cigarettes/day

Nicorette (OTC) Gum squares: 2, 4 mg (108 piece starter kit and 48 piece refill) (orange, mint, or original, sugar-free)

#### NICOTINE LOZENGE

Commit Lozenge Loz: 2, 4 mg (72/pck) (phenylalanine)

Nicorette Mini Lozenge (G) Loz: 2, 4 mg (72/pck) (mint) (phenylalanine)

#### NICOTINE INHALATION PRODUCTS

*nicotine* 0.5 mg aqueous nasal spray (D)

Nicotrol NS 12 years: not recommended; ≥12 years: 1-2 doses/hour nasally; max 5 doses/hour or 40 doses/day; usual max 3 months

Nasal spray: 0.5 mg/spray; 10 mg/ml (10 ml, 200 doses)

Inhaler: 10 mg/cartridge, 4 mg delivered (42 cartridge/pck) (menthol)

Comment: Nicotrol Inhaler is a smoking replacement; to be used with decreasing frequency. Smoking should be discontinued before starting therapy. Side effects include cough, nausea, mouth, or throat irritation. This system delivers nicotine, but no tars or carcinogens. Each cartridge lasts about 20 minutes with frequent continuous puffing and provides nicotine equivalent to 2 cigarettes.

## **TONSILLITIS: ACUTE**

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

azithromycin (B) <12 years: 12 mg/kg/day x 5 days; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1 dose on day 1, then 250 mg once daily on days 2-5 or 500 mg once daily x 3 days or Zmax 2 gm in a single dose</p>

Zithromax Tab: 250, 500, 600 mg; Oral susp: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); Pkt: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na+)

cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; >12 years: 250-500 mg q 8 hours x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

Tab: 375, 500 mg ext-rel

cefadroxil <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in a single or 2 divided doses x 10 days Duricef Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml</p>

(75, 100 ml) (orange-pineapple)

cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; ≥12 years: 300 mg bid x 10 days or 600 mg daily x 10 days</p>

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

cefditoren pivoxil (B) <12 years: not recommended; ≥12 years: 200 mg bid x 10 days
</p>

Spectracef Tab: 200 mg

**Comment**: Contraindicated with milk protein allergy or carnitine deficiency.

ceftibuten (B) <12 years: 9 mg/kg daily x 10 days; max 400 mg/day; see page 555 for dose by weight table; ≥12 years: 400 mg daily x 10 days</p>

Cedax Cap: 400 mg; Oral susp: 90 mg/5 ml (30, 60, 90, 120 ml); 180 mg/5 ml (30, 60, 120 ml) (cherry)

cefixime (B)(G) <6 months: not recommended; 6 months-12 years, <50 kg: 8 mg/kg/day in 1-2 divided doses x 10 days; see page 552 for dose by weight table; >12 years, >50 kg: 400 mg once daily x 10 days

Suprax Tab: 400 mg; Cap: 400 mg; Oral susp: 100, 200, 500 mg/5 ml (50, 75, 100 ml) (strawberry)

- cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 5-7 days; see page 553 for dose by weight table; >12 years: 200 mg bid x 5-7 days
- ▶ cefprozil (B) <2 years: not recommended; 2-12 years: 7.5 mg/kg bid x 10 days; see page 554 for dose by weight table; >12 years: 500 mg once daily x 10 days Cefzil Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble

gum) (phenylalanine)

cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 250 mg tid x 10 days</p>

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/ kg bid x 10 days; see page 558 for dose by weight table; >12 years: 250 mg bid or 500 mg ext-rel once daily 10 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

dirithromycin (C)(G) <12 years: not recommended; ≥12 years: 500 mg once daily x 10 days
</p>

Dvnabac Tab: 250 mg

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 10 days; ≥45 kg: 500 mg q 6 hours x 10 days</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

► erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules *Oral susp*: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 10 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 10 days</p>

Lorabid Pulvule: 200, 400 mg; Oral susp: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

▶ penicillin V potassium (B)(G) <12 years: 25-75 mg/kg day divided q 6-8 hours x 10 days; see page 572 for dose by weight table; ≥12 years: 250 mg tid x 10 days</p>

Pen-VK Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)

## TRICHINOSIS (TRICHINELLA SPIRALIS)

Comment: Trichinosis is caused by eating raw or undercooked pork or wild game infected with the larvae of a parasitic worm, *Trichinella spiralis*. The initial symptoms are abdominal discomfort, nausea, vomiting, diarrhea, fatigue, and fever beginning one to two days following ingestion. These parasites then invade other organs (e.g., muscles) causing muscle aches, itching, fever, chills, and joint pains that begins about two to eight weeks after ingestion. The treatment is oral anthelmintics, which may cause abdominal pain, diarrhea, and (rarely) hypersensitivity reactions, convulsions, neutropenia, agranulocytosis, and hepatitis.

#### ANTHELMINTICS

**Comment**: Oral bioavailability of anthelmintics is enhanced when administered with a fatty meal (estimated fat content 40 g).

▶ albendazole (C) take with a meal; may crush and mix with food; may repeat in 3 weeks if needed; <2 years: 200 mg once daily x 3 days; 2-12 years: 400 mg once daily x 3 days; >12 years: 400 mg as bid x 3 days;

Albenza Tab: 200 mg

mebendazole (C) <2 years: not recommended; ≥2 years: chew, swallow, or mix with food; 200-400 mg tid x 3 days; then 400-500 mg tid</p>

Emverm Chew tab: 100 mg

Vermox (G) Chew tab: 100 mg

▶ pyrantel pamoate (C) take with a meal; may open capsule and sprinkle or mix with food; treat x 3 days; may repeat in 2-3 weeks if needed; 11 mg/kg/dose; max 1 gm/dose; <25 lb: not recommended; 25-37 lb: 1/2 tsp/dose; 38-62 lb: 1 tsp/dose; 63-87 lb: 1 tsp/dose; 88-112 lb: 2 tsp/dose; 113-137 lb: 2 tsp/dose; 138-162 lb: 3 tsp/dose; 163-187 lb: 3 tsp/dose; >187 lb: 4 tsp/dose

Antiminth Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (60 ml)

Pin-X (OTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (30 ml)

thiabendazole (C) take with a meal; may crush and mix with food; treat x 7 days; may repeat in 3 weeks if needed; <30 lb: consult mfr pkg insert; ≥30 lb: 25 mg/kg/dose bid; 30-50 lb: 250 mg bid; >50 lb: 10 mg/lb/dose bid; max 1.5 gm/dose; max 3 g/day

Mintezol Chew tab: 500\*mg (orange); Oral susp: 500 mg/5 ml (120 ml) (orange) Comment: thiabendazole is not for prophylaxis. May impair mental alertness. May not be available in the US.

## TRICHOMONIASIS (TRICHOMONAS VAGINALIS)

Comment: The following treatment regimens for *Trichomoniasis* are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treat all sexual contacts. A multidose treatment regimen should be considered in HIV-positive females.

## RECOMMENDED REGIMENS (NON-PREGNANT)

#### Regimen 1

➤ metronidazole 2 gm once in a single dose

#### Regimen 2

#### RECOMMENDED ALTERNATE REGIMEN

#### Regimen 1

➤ metronidazole 500 mg bid x 7 days

#### DRUG BRANDS AND DOSE FORMS

metronidazole (not for use in 1st; B in 2nd, 3rd)(G)

Flagyl *Tab*: 250\*, 500\*mg

Flagyl 375 Cap: 375 mg

Flagyl ER Tab: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

tinidazole (not for use in 1st; B in 2nd, 3rd)

Tindamax Tab: 250\*, 500\*mg

#### RECOMMENDED REGIMENS: PREGNANCY/LACTATION

**Comment**: All pregnant females should be considered for treatment. They can be treated with 2 gm *metronidazole* in a single dose at any stage of pregnancy. Lactating females who are administered *metronidazole* should be instructed to interrupt breastfeeding for 12-24 hours after receiving the 2 gm dose of *metronidazole*.



## TRIGEMINAL NEURALGIA (TIC DOULOUREUX)

baclofen (C)(G) <12 years: not recommended; ≥12 years: initially 5-10 mg tid with food; usual dose 10-80 mg/day</p>

Lioresal Tab: 10\*, 20\*mg

Comment: Potential for seizures  $\underline{or}$  hallucinations on abrupt with drawal of *baclofen*.

carbamazepine (C)

Carbatrol <12 years: max <35 mg/kg/day; use ext-rel form above 400 mg/day; 12-15 years: max 1 gm/day in 2 divided doses; >15-18 years: usual maintenance 1.2 gm/day in 2 divided doses; >18 years: initially 200 mg bid; may increase weekly as needed by 200 mg/day; usual maintenance 800 mg-1.2 gm/day

\*\*Cap: 200, 300 mg ext-rel\*

Tegretol(G) <6 years: initially 10-20 mg/kg/day in 2 divided doses; increase weekly as needed in 3-4 divided doses; max 35 mg/kg/day in 3-4 divided doses;  $\geq$ 6 years-12 years: initially 100 mg bid; increase weekly as needed by 100 mg/day in 3-4 divided doses; max 1 gm/day in 3-4 divided doses; >12 years: initially 100 mg bid or 1/2 tsp susp qid; may increase dose by 100 mg q 12 hours or by 1/2 tsp susp q 6 hours; usual maintenance 400-800 mg/day; max 200 mg/day

Tab: 200\*mg; Chew tab: 100\*mg; Oral susp: 100 mg/5 ml (450 ml) (citrus-vanilla)

Tegretol XR (G) <6 years: use other forms; 6-12 years: initially 100 mg bid; may increase weekly by 100 mg/day in 2 divided doses; max 1 gm/day; >12 years: initially 200 mg bid; may increase weekly by 200 mg/day in 2 divided doses *Tab*: 100, 200, 400 mg ext-rel

clonazepam (D)(IV)(G) < 10 years, < 30 kg: initially 0.1-0.3 mg/kg/day; may increase up to 0.05 mg/kg/day bid-tid; usual maintenance 0.1-0.2 mg/kg/day tid; ≥ 10 years: initially 0.25 mg bid; increase to 1 mg/day after 3 days
</p>

Klonopin Tab: 0.5\*, 1, 2 mg

Klonopin Wafers dissolve in mouth with or without water

Wafer: 0.125, 0.25, 0.5, 1, 2 mg orally-disint

divalproex sodium (D) <10 years: not recommended; ≥10 years: initially 250 mg
 bid; gradually increase to max 1000 mg/day if needed
</p>

Depakene Cap: 250 mg; Syr: 250 mg/5 ml

Depakote Tab: 125, 250 mg

Depakote ER Tab: 250, 500 mg ext-rel

Depakote Sprinkle Cap: 125 mg

> phenytoin (D) 400 mg/day in divided doses

Dilantin Cap: 30, 100 mg; Oral susp: 125 mg/5 ml (8 oz); Infatab: 50 mg Comment: Monitor phenytoin serum levels. Therapeutic serum level: 10-20 gm/ml. An ASE is gingival hyperplasia.

valproic acid (D) initially 15 mg/kg/day; may increase weekly by 5-10 mg/kg/day; max 60 mg/kg/day or 250 mg/day

Depakene Cap: 250 mg; Syr: 250 mg/5 ml

## TRICYCLIC ANTIDEPRESSANTS (TCAs)

Comment: Co-administration of SSRIs and TCAs requires extreme caution.

- amitriptyline (C)(G) <12 years: not recommended; ≥12 years: 10-20 mg q HS
   Tab: 10, 25, 50, 75, 100, 150 mg
  </p>
- amoxapine (C) <12 years: not recommended; ≥12 years: initially 50 mg bid-tid; after 1 week may increase to 100 mg bid-tid; usual effective dose 200-300 mg/day; if total dose exceeds 300 mg/day, give in divided doses (max 400 mg/day); may give as a single bedtime dose (max 300 mg q HS)
  </p>

Tab: 25, 50, 100, 150 mg

- Clomipramine (C)(G) <10 years: not recommended; 10-<16 years: initially 25 mg daily in divided doses; gradually increase; max 3 mg/kg or 100 mg, whichever is less; >16 years: initially 25 mg daily in divided doses; gradually increase to 100 mg during first 2 weeks; max 250 mg/day; total maintenance dose may be given at HS Anafranil Cap: 25, 50, 75 mg
- desipramine (C)(G) <12 years: not recommended; ≥12 years: 100-200 mg/day in single or divided doses; max 300 mg/day
  </p>

Norpramin Tab: 10, 25, 50, 75, 100, 150 mg

doxepin (C)(G) <12 years: not recommended; ≥12 years: 75 mg/day; max 150 mg/day
</p>

*Cap*: 10, 25, 50, 75, 100, 150 mg; *Oral conc*: 10 mg/ml (4 oz w. dropper)

ightharpoonup imipramine (C)(G) <12 years: not recommended; ≥12 years:

Tofranil initially 75 mg daily (max 200 mg); adolescents initially 30-40 mg daily (max 100 mg/day); if maintenance dose exceeds 75 mg daily, may switch to Tofranil PM for divided or bedtime dose

Tab: 10, 25, 50 mg

Tofranil PM initially 75 mg daily 1 hour before HS; max 200 mg Cap: 75, 100, 125, 150 mg

> nortriptyline (D)(G) <12 years: not recommended; ≥12 years: initially 25 mg tid-qid; max 150 mg/day</p>

Pamelor Cap: 10, 25, 50, 75 mg; Oral soln: 10 mg/5 ml (16 oz)

protriptyline (C) <12 years: not recommended; ≥12 years: initially 5 mg tid; usual dose 15-40 mg/day in 3-4 divided doses; max 60 mg/day</p>
Vivactil Tab: 5, 10 mg

trimipramine (C) <12 years: not recommended; ≥12 years: initially 75 mg/day in divided doses; max 200 mg/day
</p>

**Surmontil** *Cap*: 25, 50, 100 mg



# PULMONARY TUBERCULOSIS (TB; MYCOBACTERIUM TUBERCULOSIS)

#### **SCREENING**

▶ purified protein derivative (PPD) (C) 0.1 ml intradermally; examine inoculation site for induration at 48 to 72 hours.

Aplisol, Tubersol Soln: 5 US units/0.1 ml (1, 5 ml)

#### PROPHYLACTIC IMMUNIZATION

The only tuberculosis vaccine uses attenuation of the related organism *Mycobacterium bovis* by culture in bile-containing media to create the *Bacillus Calmette-Guerin* (BCG) vaccination strain. It was first used experimentally in 1921 by Albert Calmette and

Camille Guerin and is currently in widespread use outside of the United States. It is not available in the US. The BCG vaccine protects newborns against tuberculosis-related meningitis and other systemic tuberculosis infections, but it has limited protection against active pulmonary disease. Once vaccinated, the patient will be PPD positive.

#### ANTITUBERCULAR AGENTS

Comment: Avoid *streptomycin* in pregnancy. *Pyridoxine* (*vitamin B*<sub>o</sub>) 25 mg once daily x 6 months should be administered concomitantly with *INH* for prevention of side effects. *Rifapentine* produces red-orange discoloration of body tissues and body fluids and may stain contact lenses.

bedaquiline (B)(G)

Sirturo Tab: 100 mg

**Comment**: *bedaquiline* is a diarylquinoline antimycobacterial ATP synthase for the treatment of pulmonary multidrug resistant TB (MDR-TB).

ethambutol (EMB) (B)(G)

Myambutol Tab: 100, 400\*mg

isoniazid (INH) (C) Tab: 300\*mg

> pyrazinamide (PZA) (C) Tab: 500\*mg

rifampin (RIF) (C)(G)

Rifadin, Rimactane Cap: 150, 300 mg

rifapentine (C)

**Priftin** *Tab*: 150 mg (24, 32 ct pck)

Comment: The 32-count packs of Priftin are intended for patients with active tuberculosis infection (TB). The 24-count packs are intended for patients with latent tuberculosis infection (LTBI) who are at high risk for progression to tuberculosis disease. Priftin for active TB is indicated for patients ≥12 years-of-age. Priftin for LTBI is indicated for patients ≥2 years-of-age.

rilpivirine (C) Tab: 25 mg

Rifabutin Cap: 150 mg

► streptomycin (SM) (C)(G) Amp: 1 gm/2.5 ml or 400 mg/ml (2.5 ml)

#### COMBINATION AGENTS

rifampin/isoniazid (C)

Rifamate Cap: rif 300 mg/iso 150 mg

rifampin/isoniazid/pyrazinamide (C)

Rifater Tab: rif 120 mg/iso 50 mg/pyr 300 mg

#### PROPHYLAXIS AFTER EXPOSURE TO TUBERCULOSIS, WITH NEGATIVE PPD

isoniazid (C) <12 years: 10-20 mg/kg/day x 9 months; ≥12 years: 300 mg once daily in a single dose x at least 6 months

#### PROPHYLAXIS AFTER EXPOSURE, WITH NEW PPD CONVERSION

isoniazid (C) <12 years: 10-20 mg/kg/day x 9 months; ≥12 years: 300 mg once daily in a single dose x 12 months

Tab: 100, 300\*mg; Syr: 50 mg/5 ml; Inj: 100 mg/ml

Prifampin (C) <12 years: rifampin 10-20 mg/kg + isoniazid 10-20 mg/kg once daily x 4 months; ≥12 years: 600 mg once daily + isoniazid 300 mg once daily x 4 months
</p>

#### TREATMENT REGIMENS, <12 YEARS-OF-AGE

#### Regimen 1

rifampin 10-20 mg/kg + isoniazid 10-20 mg/kg + pyrazinamide 15-20 mg/kg + ethambutol 15-25 mg/kg or streptomycin 20-40 mg/kg once daily x 8 weeks; then isoniazid 10-20 mg/kg + rifampin 10-20 mg/kg once daily x 16 weeks or isoniazid 20-40 mg/kg + rifampin 10-20 mg/kg 2-3 times/week x 16 weeks

#### Regimen 2

Prifampin 10-20 mg/kg + isoniazid 10-20 mg/kg + pyrazinamide 15-30 mg/kg + ethambutol 15-25 mg/kg or streptomycin 20-40 mg/kg once daily x 2 weeks; then rifampin 10-20 mg/kg + isoniazid 20-40 mg/kg + pyrazinamide 50-70 mg/kg + ethambutol 50 mg/kg or streptomycin 25-30 mg/kg 2 times/week x 6 weeks; then isoniazid 10-20 mg/kg + rifampin 10-20 mg/kg once daily x 16 weeks or rifampin 10-20 mg/kg + isoniazid 20-40 mg/kg 2 times/week x 16 weeks

### Regimen 3

Prifampin 10-20 mg/kg + isoniazid 20-40 mg/kg + pyrazinamide 50-70 mg/kg + ethambutol 25-30 mg/kg or streptomycin 25-30 mg/kg 3 times/week x 6 months

## Regimen 4 (When Pyrazinamide Is Contraindicated)

▶ rifampin 10-20 mg/kg + isoniazid 10-20 mg/kg + ethambutol 15-25 mg/kg + streptomycin 20-40 mg/kg once daily x 4-8 weeks; then isoniazid 10-20 mg/kg + rifampin 10-20 mg/kg once daily x 24 weeks or rifampin 10-20 mg/kg + isoniazid 20-40 mg/kg 2 x/week x 24 weeks

## TREATMENT REGIMENS (≥12 YEARS-OF-AGE)

## Regimen 1

#### Regimen 2

900 mg + *pyrazinamide* 4 gm + *ethambutol* 50 mg/kg <u>or</u> *streptomycin* 1.5 gm 2 times/week x 6 weeks; then *isoniazid* 300 mg + *rifampin* 600 mg once daily x 16 weeks <u>or</u> 2 times/week x 16 weeks *rifampin* 600 mg once daily x 16 weeks <u>or</u> 2 times/week x 16 weeks

#### Regimen 3

#### Regimen 4 (Smear and Culture Negative for Pulmonary TB ≥12 Years-of-Age)

▶ Options 1, 2, or 3 x 8 weeks; then isoniazid 300 mg + rifampin 600 mg once daily x 16 weeks; then rifampin 600 mg + isoniazid 300 mg + pyrazinamide 2 gm + ethambutol 15-25 mg/kg or streptomycin 1 gm once daily x 8 weeks or 2-3 times/week x 8 weeks

#### Regimen 5 (smear and culture negative for pulmonary TB ≥12 years-of-age)

#### Regimen 6 (When Pyrazinamide Is Contraindicated)

Prifampin 600 mg + isoniazid 300 mg + ethambutol 15-25 mg/kg + streptomycin 1
 gm once daily x 4-8 weeks; then isoniazid 300 mg + rifampin 600 mg once daily x
 24 weeks or 2 x/week x 24 weeks

## TREATMENT REGIMENS, <12 YEARS-OF-AGE

### Regimen 1

#### Regimen 2

#### Regimen 3

Prifampin 10-20 mg/kg + isoniazid 20-40 mg/kg + pyrazinamide 50-70 mg/kg + ethambutol 25-30 mg/kg or streptomycin 25-30 mg/kg 3 times/week x 6 months

#### Regimen 4 (When Pyrazinamide Is Contraindicated)

Prifampin 10-20 mg/kg + isoniazid 10-20 mg/kg + ethambutol 15-25 mg/kg +
 streptomycin 20-40 mg/kg once daily x 4-8 weeks; then isoniazid 10-20 mg/kg +
 rifampin 10-20 mg/kg once daily x 24 weeks or rifampin 10-20 mg/kg + isoniazid
 20-40 mg/kg 2 x/week x 24 weeks



## **TYPE 1 DIABETES MELLITUS**

**Comment**: Target glycosylated hemoglobin (HbA1c) is <7%. Addition of daily ACE-I and/or ARB therapy is strongly recommended for renal protection. Insulin may be indicated in the management of Type 2 diabetes with or without concomitant oral antidiabetic agents.

#### TREATMENT FOR ACUTE HYPOGLYCEMIA

#### INHALED INSULIN

#### Rapid-Acting Inhalation Powder Insulin

insulin human (inhaled) (C) <18 years: not established; ≥18 years: one inhaler may be used for up to 15 days, then discard; dose at meal times as follows: Insulin naïve: initially 4 units at each meal; adjust according to blood glucose monitoring Conversion from SC to inhaled mealtime insulin:</p>

SC 1-4 units: inhal 4 units

SC 5-8 units: inhal 8 units

SC 9-12 units: inhal 12 units

SC 13-16 units: inhal 16 units

SC 17-20 units: inhal 20 units

SC 21-24 units: inhal 24 units

Afrezza Inhalation Powder administer at the beginning of the meal; *Mealtime insulin naïve*: initially 4 units at each meal; *Using SC prandial insulin*: convert dose to Afrezza using a conversion table (see mfr pkg insert); *Using SC premixed*: divide 1/2 of total daily injected premixed insulin equally among 3 meals of the day; administer 1/2 total injected premixed dose as once daily injected basal insulin dose

*Inhal:* 4, 8, 12 unit single-inhalation color-coded cartridges (30, 60, 90/pkg w. 2 disposable inhalers)

Comment: Afrezza is not a substitute for long-acting insulin. Afrezza must be used in combination with long-acting insulin in patients with T1DM. Afrezza is not recommended for the treatment of diabetic ketoacidosis. Afrezza is contraindicated with chronic lung disease because of the risk of acute bronchospasm. The use of Afrezza is not recommended in patients who smoke or who have recently stopped smoking. Each card contains 5 blister strips with 3 cartridges each (total 15 cartridges). The doses are color-coded. Afrezza is contraindicated with chronic respiratory disease (e.g., asthma, COPD) and patients prone to episodes of hypoglycemia.

#### INJECTABLE INSULINS

#### Rapid-Acting Insulins

insulin aspart (recombinant) (B) <2 years: not recommended; 2-4 years: use SC only; >4 years: may use SC or insulin pump (CSII); onset ≤15 minutes; peak 1-3 hours; duration 3-5 hours; administer 5-10 minutes prior to a meal; SC or infusion pump or IV infusion

 $\bar{\mbox{NovoLog}}$   $\it Vial:$  100 U/ml (10 ml);  $\it PenFill$   $\it cartridge:$  100 U/ml (3 ml, 5/pck) (zinc, m-cresol)

insulin glulisine (rDNA origin) (C) <4 years: not recommended; ≥4 years: SC only; may administer via insulin pump; do not dilute or mix with other insulin in pump; onset <15 minutes; peak 1 hour; duration 2-4 hours; administer up to 15 minutes before, or within 20 minutes after starting a meal; use with an intermediate or long-acting insulin

Apidra Vial: 100 U/ml (10 ml); Cartridge: 100 U/ml (3 ml, 5/pck; m-cresol)

insulin lispro (recombinant) (B) <3 years: not recommended; ≥3 years: administer up to 15 minutes before, or immediately after, a meal; SC or IV infusion pump only onset ≤15 minutes; peak 1 hour; duration 3.5-4.5 hours

#### Humalog

Vial: 100 U/ml (10 ml); Prefilled disposable KwikPen: 100 U/ml (3 ml, 5/pck) (zinc, m-cresol); HumaPen Memoir and HumaPen Luxura HD inj device for Humalog cartridges (100 U/ml, 3 ml 5/pck) (zinc, m-cresol)

insulin regular (B)

Humulin R U-100 (human, recombinant) (OTC) onset 30 minutes; peak 2-4 hours; duration up to 6-8 hours; SC  $\underline{or}$  IV  $\underline{or}$  IM

Vial: 100 U/ml (10 ml)

**Humulin R U-500** (*human, recombinant*) onset 30 minutes; peak 1.75-4 hours; duration up to 24 hours; SC only; for in-hospital use only

Vial: 500 U/ml (20 ml) (m-cresol); KwikPen: 3 ml (2, 5/carton)

Comment: Humulin R U-500 formulation is 5 times more concentrated than standard U-100 concentration, indicated for patient's  $\geq$ 18 years-of-age and children who require  $\geq$ 200 units of insulin/day, allowing patients to inject 80% less liquid to receive the desired dose.

Iletin II Regular (pork) (OTC) onset 30 minutes; peak 2-4 hours; duration 6-8 hours; SC or IV or IM

Vial: 100 U/ml (10 ml)

Novolin R (human) (OTC) onset 30 minutes; peak 2.5-5 hours; duration 8 hours; SC or IV or IM

*Vial*: 100 U/ml (10 ml); *PenFill cartridge*: 100 U/ml (1.5 ml, 5/pck); *Prefilled syringe*: 100 U/ml (1.5 ml, 5/pck)

pramlintide (amylin analog/amylinomimetic) (C) <12 years: not recommended; ≥12 years: administer immediately before major meals (≥250 kcal or ≥30 gm carbohydrates); initially 15 mcg; titrate in 15 mcg increments for 3 days if no significant nausea occurs; if nausea occurs at 45 or 60 mcg, reduce to 30 mcg; if not tolerated, consider discontinuing therapy; Maintenance: 60 mcg (30 mcg only if 60 mcg not tolerated)
</p>

Symlin Vial: 0.6 mg/ml (5 ml) (m-cresol, mannitol)

Comment: Symlin is indicated as adjunct to mealtime insulin with <u>or</u> without a sulfonylurea <u>and</u> blood glucose control is suboptimal despite optimal insulin therapy. Do not mix with insulin. When initiating Symlin, reduce preprandial

short/rapid-acting insulin dose by 50% and monitor pre- and postprandial and bedtime blood glucose. Do not use in patients with poor compliance, HgbA1c is >9%, recurrent hypoglycemia requiring assistance in the previous 6 months, or if taking a prokinetic drug. With Type 2 DM, initial therapy is 60 mcg/dose and max is 120 mcg/dose.

#### RAPID-ACTING AND INTERMEDIATE-ACTING INSULIN

#### Insulin Aspart Protamine Suspension/Insulin Aspart Combinations

insulin aspart protamine suspension 70%/insulin aspart 30% (recombinant) (B)(G)
 <12 years: not recommended; do not mix with other insulin; SC only; onset 15 min;
 peak 2.4 hours; duration up to 24 hours
</p>

NovoLog Mix 70/30 (OTC) Vial: 100 U/ml (10 ml)

NovoLog Mix 70/30 FlexPen (OTC) Prefilled disposable pen: 100 U/ml (3 ml, 5/pck); PenFill cartridge: 100 U/ml (3 ml, 5/pck)

#### LONG-ACTING INSULINS

insulin detemir (human) (B) <2 years: not recommended; ≥2 years: administer SC once daily with evening meal or at HS as a basal insulin; may administer twice daily (AM/PM); administer in the deltoid, abdomen, or thigh; onset 1-2 hours; peak 6-8 hours; duration 24 hours; switching from another basal insulin, dose should be the same on a unit-to-unit basis; may need more insulin detemir when switching from NPH; Type 1: starting dose 1/3 of total daily insulin requirements; rapid-acting or short-acting, pre-meal insulin should be used to satisfy the remainder of daily insulin requirements; Type 2 (inadequately controlled on oral antidiabetic agents): initially 10 units or 0.1-0.2 units/kg, once daily in the evening or divided twice daily (AM/PM); do not add-mix or dilute insulin detemir with other insulins.

Levemir Vial: 100 U/ml (10 ml); FlexPen: 100 U/ml (3 ml, 5/pck) (zinc, m-cresol)

**Comment:** Do not mix or dilute *insulin detemir* with other insulins.

insulin glargine (recombinant) (C) <6 years: not established; ≥6 years: do not mix or dilute with other insulins

Basaglar administer SC once daily, at the same time each day, as a basal insulin in the deltoid, abdomen, or thigh; onset 1-1.5 hours, no pronounced peak, duration 20-24 hours; T1DM (adults, adolescents, and children >6 years-of-age): initially 1/3 of total daily insulin dose; administer the remainder of the total dose as short- or rapid-acting preprandial insulin; T2DM (≥18 years only): initially 2 units/kilogram or up to 10 units once daily; Switching from once daily insulin glargine 300 units/ml (i.e., Toujeo) to 100 units/ml: initially 80% of the insulin glargine 300 units/ml; Switching from twice daily NPH: initially 80% of the total daily NPH dose; do not add-mix or dilute insulin glargine with other insulins.

Prefilled KwikPen (disposable), 100 U/ml (3 ml) (5/carton)
Lantus <6 years: not recommended; ≥6 years: administer SC once daily at the same time each day as a basal insulin; onset 1-1.5 hours, no pronounced peak, duration 20-24 hours; initial average starting dose 10 units for insulin-naïve patients; Switching from once daily NPH or Ultralente insulin: initial dose of insulin glargine should be on a unit-for-unit basis; Switching from twice daily NPH insulin: start at 20% lower than the total daily NPH dose

Vial: 100 U/ml (10 ml); Cartridge: 100 U/ml (3 ml, for use in the OptiPen One Insulin Delivery Device) (5/carton) (m-cresol); SoloStar pen (disposable): 100 U/ml (3 ml) (5/carton)

Toujeo <18 years: not established; ≥18 years: administer SC once daily at the same time each day as a basal insulin; in the upper arm, abdomen, or thigh; onset of action 6 hours; duration 20-24 hours; *T2DM, insulin naïve*: initially 0.2 units/kg; titrate every 3-4 days; *T1DM, insulin naïve*: initially 1/3-1/2 total daily insulin dose; remainder as short-acting insulin divided between each meal; *Switch from once daily long-* or *intermediate-acting insulin*: on a unit-for-unit basis; *Switching from Lantus*: a higher daily dose is expected; *Switching from twice daily NPH*: reduce initial dose by 20% of total daily NPH dose

Soln for SC injection: 300 units/ml prefilled disposable SoloStar Pen (1.5 ml, 3-5/carton)

insulin isophane suspension (NPH) (B) <18 years: not recommended; ≥18 years: Humulin N (human, recombinant) (OTC) onset 1-2 hours; peak 6-12 hours; duration 18-24 hours; SC only

Vial: 100 U/ml (10 ml); Prefilled disposable pen: 100 U/ml (3 ml, 5/pck) Novolin N (recombinant) (OTC) onset 1.5 hours; peak 4-12 hours; duration 24 hours; SC only

Vial: 100 U/ml (10 ml); PenFill cartridge: 1.5 ml (5/pck); KwikPens: 1.5 ml

Iletin II NPH (pork) (OTC) onset 1-2 hours; peak 6-12 hours; duration 18-26 hours; SC only

Vial: 100 U/ml (10 ml)

insulin zinc suspension (lenté) (B) <18 years: not recommended; ≥18 years:

Humulin L (human) (OTC) onset 1-3 hours; peak 6-12 hours; duration 18-24 hours; SC only

Vial: 100 Ú/ml (10 ml)

Iletin II Lente (pork) (OTC) onset 1-3 hours; peak 6-12 hours; duration 18-26 hours; SC only

Vial: 100 Ú/ml (10 ml)

Novolin L (human) (OTC) onset 2.5 hours; peak 7-15 hours; duration 22 hours; SC only

Vial: 100 U/ml (10 ml)

## **Ultra Long-Acting Insulin**

insulin degludec (insulin analog) (C) <1 year: not established; ≥1 year: administer by SC injection once daily at any time of day, with or without food, into the upper arm, abdomen, or thigh; titrate every 3-4 days; Insulin naïve with type 1 diabetes: initially 1/3-1/2 of total daily insulin dose, usually 0.2-0.4 units/kg; administer the remainder of the total dose as short-acting insulin divided between each daily meal; Insulin naïve with type 2 diabetes: initially 10 units once daily; adjust dose of concomitant oral antidiabetic agent; Already on insulin (type 1 or type 2): initiate at same unit dose as total daily long- or intermediate-acting insulin unit dose</p>

Tresiba FlexTouch Pen: 100 U/ml (3 ml, 5 pens/carton), 200 U/ml (3 ml, 5 pens/carton) (zinc, m-cresol)

Comment: Tresiba U-200 FlexTouch is the only long-acting insulin in a 160-unitpen allowing up to 160 units in a single injection. The U-200 dose counter always shows the desired dose (i.e., no conversion from U/100 to U-200 is required)

insulin extended zinc suspension (Ultralente) (human) (B) <18 years: not recommended; ≥18 years: SC only; onset 4-6 hours; peak 8-20 hours; duration 24-48 hours</p>

Humulin U (OTC) Vial: 100 U/ml (10 ml)

#### Insulin Lispro Protamine/Insulin Lispro Combinations

insulin lispro protamine 75%/insulin lispro 25% (B) <18 years: not recommended;
 ≥18 years:
</p>

Humalog Mix 75/25 (human) onset 15 minutes; peak 30 minutes to 1 hour; duration 24 hours; SC only

Vial: 100 U/ml (10 ml); Prefilled disposable KwikPen: 100 U/ml (3 ml, 5/carton) (zinc, m-cresol); HumaPen Memoir and HumaPen Luxura HD inj device for Humalog cartridges (100 U/ml, 3 ml, 5/carton) (zinc, m-cresol)

insulin lispro protamine 50%/insulin lispro 50% (B) <18 years: not recommended; ≥18 years:</p>

Humalog Mix 50/50 (recombinant) (B) onset 15 minutes; peak 2.3 hours; range 1-5 hours; SC only

Vial: 100 U/ml (10 ml); Prefilled disposable KwikPen: 100 U/ml (3 ml, 5/carton) (zinc, m-cresol); HumaPen Memoir and HumaPen Luxura HD inj device for Humalog cartridges (100 U/ml, 3 ml, 5/carton) (zinc, m-cresol)

### Insulin Isophane Suspension (NPH)/Insulin Regular Combinations

 $\triangleright$  NPH 70%/regular 30% (B) <18 years: not recommended; ≥18 years:

Humulin 70/30 (human, recombinant) (OTC) onset 30 minutes; peak 2-12 hours; duration up to 24 hours; SC only

Vial: 100 U/ml (10 ml)

Novolin 70/30 (recombinant) (OTC) onset 30 minutes; peak 2-12 hours; duration up to 24 hours; SC only

Vial: 100 U/ml (10 ml)

 $\triangleright$  NPH 50%/regular 50% (B) <18 years: not recommended; ≥18 years:

Humulin 50/50 (human) (OTC) onset 30 minutes; peak 3-5 hours; duration up to 24 hours; SC only

Vial: 100 U/ml (10 ml)

## Insulin Lispro Protamine/Insulin Lispro Combinations

insulin lispro protamine 75%/insulin lispro 25% (B) <18 years: not recommended; ≥18 years:</p>

Humalog Mix 75/25 (recombinant) onset 15 minutes; peak 30-90 minutes; duration 24 hours; SC only

Vial: 100 U/ml (10 ml); Prefilled disposable KwikPen: 100 U/ml (3 ml, 5/carton) (zinc, m-cresol); HumaPen Memoir and HumaPen Luxura HD inj device for Humalog cartridges (100 U/ml, 3 ml 5/carton) (zinc, m-cresol)

insulin lispro protamine 50%/insulin lispro 50% (B) <18 years: not recommended; ≥18 years:</p>

Humalog Mix 50/50 (recombinant) onset 15 minutes; peak 1 hour; duration up to 16 hours; SC only

Vial: 100 U/ml (10 ml); Prefilled disposable KwikPen: 100 U/ml (3 ml, 5/carton) (zinc, m-cresol); HumaPen Memoir and HumaPen LUXURA HD inj device for Humalog cartridges (100 U/ml, 3 ml 5/carton) (zinc, m-cresol);

U/ml (3 ml, 5/pck) (zinc, m-cresol); *HumaPen Memoir* and *HumaPen LUXURA* HD inj device for *Humalog cartridges* (100 U/ml, 3 ml 5/pck) (zinc, m-cresol); (100 U/ml, 3 ml 5/carton (zinc, m-cresol)

#### Basal insulin/GLP-1 RA Combinations

insulin degludec (insulin analog)/liraglutide (C) <18 years: not recommended; ≥18 years: for treatment of type 2 diabetes only in patients inadequately controlled on <50 units of basal insulin daily or <1.8 mg of liraglutide daily; administer by SC injection once daily, with or without food, into the upper arm, abdomen, or thigh; titrate every 3-4 days

**Xultophy** *Prefilled pen:* 100/3.6 U/ml (3 ml, 5 pens/carton)

insulin glargine (insulin analog)/lixisenatide (C) <18 years: not recommended; ≥18 years: for treatment of type 2 diabetes only in patients inadequately controlled on <60 units of basal insulin daily or lixisenatide; administer by SC injection once daily, with or without food, into the upper arm, abdomen, or thigh; titrate every 3-4 days

Soliqua Prefilled pen: 100/33 U/ml (3 ml, 5 pens/carton) covering 15-60 mg insulin glargine 100 units/ml and 15-20 mcg of lixisenatide (m-cresol)



## TYPE 2 DIABETES MELLITUS

Comment: Normal fasting glucose is <100 mg/dL. Impaired glucose tolerance is a risk factor for type 2 diabetes and a marker for cardiovascular disease risk; it occurs early in the natural history of these two diseases. Impaired fasting glucose is ≥100 mg/dL and <125 mg/dL. Impaired glucose tolerance is OGTT, 2 hour post-load 75 gm glucose >140 mg/dL and <200 mg/dL. Target pre-prandial glucose is 80 mg/dL to 120 mg/dL. Target bedtime glucose is 100 mg/dL to 140 mg/dL. Target glycosylated hemoglobin (HbA1c) is <7.0%. Addition of daily ACE-1 and/or ARB therapy is strongly recommended for renal protection. Consider diabetes screening at age 25 years for persons in high-risk groups (non-Caucasian, positive family history for DM, obesity). Hypertension and hyperlipidemia are common comorbid conditions. Macrovascular complications include cerebral vascular disease, coronary artery disease, and peripheral vascular disease. Microvascular complications include retinopathy, nephropathy, neuropathy, and cardiomyopathy. Oral hypoglycemics are contraindicated in pregnancy.

Insulins see Type 1 Diabetes Mellitus page 417

#### TREATMENT FOR ACUTE HYPOGLYCEMIA

P glucagon (recombinant) (B) <20 kg: 0.5 mg or 20-30 mg/kg; ≥20 kg: 1 mg; administer SC or IM or IV; if patient does not respond in 15 minutes, may administer a single or 2 divided doses
</p>

#### SULFONYLUREAS

Comment: Sulfonylureas are secretagogues (i.e., stimulate pancreatic insulin secretion); therefore, the patient taking a sulfonylurea should be alerted to the risk for hypoglycemia. Action is dependent on functioning beta cells in the pancreatic islets.

#### 1st Generation Sulfonylureas

chlorpropamide (C)(G) <12 years: not recommended; ≥12 years: initially 250 mg/day with breakfast; max 750 mg</p>

Diabinese Tab: 100\*, 250\*mg

tolazamide (C)(G) <12 years: not recommended; ≥12 years: initially 100-250 mg/day with breakfast; increase by 100-250 mg/day at weekly intervals; maintenance 100 mg 1 gm/day; max 1 gm/day
</p>

Tolinase Tab: 100, 250, 500 mg

tolbutamide (C) <12 years: not recommended; ≥12 years: initially 1-2 gm in divided doses; max 2 gm/day
</p>

Tab: 500 mg

#### 2nd Generation Sulfonylureas

plimepiride (C) <12 years: not recommended; ≥12 years: initially 1-2 mg once daily
 with breakfast; after reaching dose of 2 mg, increase by 2 mg at 1-2 week intervals as
 needed; usual maintenance 1-4 mg once daily; max 8 mg/day
</p>

Amaryl Tab: 1\*, 2\*, 4\*mg

 $\triangleright$  *glipizide* (C)(G) <12 years: not recommended; ≥12 years:

Glucotrol initially 5 mg before breakfast; increase by 2.5-5 mg every few days if needed; max 15 mg/day; max 40 mg/day in divided doses

Tab: 5\*, 10\* mg

Glucotrol XL initially 5 mg with breakfast; usual range 5-10 mg/day; max 20 mg/day

Tab: 2.5, 5, 10 mg ext-rel

DiaBeta, Micronase Tab: 1.25\*, 2.5\*, 5\*mg

**>** *glyburide*, *micronized* (B) <12 years: not recommended; ≥12 years:

Glynase PresTab initially 1.5-3 mg/day with breakfast; increase by 1.5 mg at weekly intervals if needed; usual maintenance 0.75-12 mg/day in single or divided doses; max 12 mg/day

Tab: 1.5\*, 3\*, 6\*mg

#### ALPHA-GLUCOSIDASE INHIBITORS

Comment: Alpha-glucosidase inhibitors block the enzyme that breaks down carbohydrates in the small intestine, delaying digestion and absorption of complex carbohydrates, and lowering peak postprandial glycemic concentrations. Use as monotherapy or in combination with a sulfonylurea. Contraindicated in inflammatory bowel disease, colon ulceration, and intestinal obstruction. Side effects include flatulence, diarrhea, and abdominal pain.

acarbose (B) <12 years: not recommended; ≥12 years: initially 25 mg tid ac, increase at 4-8 week intervals; or initially 25 mg once daily, increase gradually to 25 mg tid; usual range 50-100 mg tid; max 100 mg tid</p>

Precose Tab: 25, 50, 100 mg

miglitol (B) <12 years: not recommended; ≥12 years: initially 25 mg tid at the start of each main meal, titrated to 50 mg tid at the start of each main meal; max 100 mg tid
 Glyset Tab: 25, 50, 100 mg
</p>

#### BIGUANIDE

Comment: The biguanides decrease gluconeogenesis by the liver in the presence of insulin. Action is dependent on the presence of circulating insulin. Lower hepatic glucose production leads to lower overnight, fasting, and preprandial plasma glucose levels. Common side effects include GI distress, nausea, vomiting, bloating, and flatulence, which usually eventually resolve. May be used as monotherapy (≥12 years only) or with a sulfonylurea or insulin.

metformin (B)(G) take with meals

Comment: *metformin* is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery <u>or</u> receiving IV iodinated contrast agents.

Fortamet <17 years: not recommended; ≥17 years: initially 1000 mg once daily; may increase by 500 mg/day at 1 week intervals; max 2.5 gm/day

Tab: 500, 1000 mg ext-rel

Glucophage <10 years: not recommended; 10-16 years: use only as monotherapy; >16 years: initially 500 mg bid; may increase by 500 mg/day at 1 week intervals; max 1 gm bid or 2.5 gm in 3 divided doses; or initially 850 mg once daily in AM; may increase by 850 mg/day in divided doses at 2 week intervals;

Tab: 500, 850, 1000\*mg

max 2000 mg/day; take with meals

Glucophage XR <10 years: not recommended; 10-16 years: use immediate release form; >16 years: initially 500 mg by mouth every evening; may increase by 500 mg/day at 1 week intervals; max 2 gm/day

Tab: 500, 750 mg ext-rel

Glumetza ER (G) <18 years: not recommended; ≥18 years: initially 1000 mg once daily; may increase by 500 mg/day at weekly intervals; max 2 gm/day *Tab*: 500, 1000 mg ext-rel

Riomet XR <10 years: not recommended;  $\geq$ 10 years: monotherapy only; initially 500 mg once daily; may increase by 500 mg/day at 1 week intervals; max 2 gm/day in divided doses; take with meals

Oral soln: 500 mg/ml (4 oz) (cherry)

#### MEGLITINIDES

**Comment**: Meglitinides are secretagogues (i.e., stimulate pancreatic insulin secretion) in response to a meal. Action is dependent on functioning beta cells in the pancreatic islets. Use as monotherapy or in combination with *metformin*.

nateglinide (C) <12 years: not recommended; ≥12 years: 60-120 mg tid ac 1-30 minutes prior to start of the meal</p>

Starlix Tab: 60, 120 mg

repaglinide (C)(G) <12 years: not recommended; ≥12 years: initially 0.5 mg with 2-4 meals/day; take 30 minutes ac; titrate by doubling dose at intervals of at least 1 week; range 0.5-4 mg with 2-4 meals/day; max 16 mg/day

**Prandin** *Tab*: 0.5, 1, 2 mg

### THIAZOLIDINEDIONES (TZDs)

Comment: The TZDs decrease hepatic gluconeogenesis and reduce insulin resistance (i.e., increase glucose uptake and utilization by the muscles). Liver function tests are indicated before initiating these drugs. Do not start if ALT more than 3 times greater

than normal. Recheck ALT monthly for the first six months of therapy; then, every two months for the remainder of the first year and periodically thereafter. Liver function tests should be obtained at the first symptoms suggestive of hepatic dysfunction (nausea, vomiting, fatigue, dark urine, anorexia, abdominal pain).

pioglitazone (C)(G) <18 years: not recommended; ≥18 years: initially 15-30 mg once daily; max 45 mg/day as a monotherapy; usual max 30 mg/day in combination with metformin, insulin, or a sulfonylurea</p>

Actos Tab: 15, 30, 45 mg

rosiglitazone (C)(G) <18 years: not recommended; ≥18 years: initially 4 mg/day in a single or 2 divided doses; may increase after 8-12 weeks; max 8 mg/day as a monotherapy or combination therapy with metformin or a sulfonylurea; not for use with insulin</p>

Avandia Tab: 2, 4, 8 mg

## DIPEPTIDYL PEPTIDASE-4 (DPP-4) INHIBITOR/THIAZOLIDINEDIONE COMBINATION

Comment: The FDA has reported that *alogliptin*-containing drugs may increase the risk of heart failure, especially in patients who already have cardiovascular <u>or</u> renal disease. The drug Oseni (*alogliptin/pioglitazone*) is in this risk group.

alogliptin/pioglitazone (C) <18 years: not recommended; ≥18 years: take 1 dose once daily with first meal of the day; max: rosiglitazone 8 mg and max glimepiride per day; same precautions as alogliptin and pioglitazone
</p>

#### Oseni

Tab: Oseni 12.5/15: alo 12.5 mg/pio 15 mg Oseni 12.5/30: alo 12.5 mg/pio 30 mg Oseni 12.5/45: alo 12.5 mg/pio 45 mg Oseni 25/15: alo 25/pio 15 mg Oseni 25/30: alo 25/pio 30 mg Oseni 25/45: alo 25 mg/pio 45 mg

#### 2ND GENERATION SULFONYLUREA/BIGUANIDE COMBINATIONS

Comment: Metaglip and Glucovance are combination secretagogues (sulfonylureas) and insulin sensitizers (biguanides). *Sulfonylurea*: Action is dependent on functioning beta cells in the pancreatic islets; patient should be alerted to the risk for hypoglycemia. Common side effects of the biguanide include GI distress, nausea, vomiting, bloating, and flatulence, which usually eventually resolve. Take with food. *Metformin* is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery or receiving IV iodinated contrast agents.

plipizide/metformin (C) <12 years: not recommended; ≥12 years: take with meals; 
 Primary therapy: 2.5/250 once daily or if FBS is 280-320 mg/dL, may start at 2.5/250 bid; may increase by 1 tab/day every 2 weeks; max 10/2,000 per day in 2 divided doses; Second-Line Therapy: 2.5/500 or 5/500 bid; may increase by up to 5/500 every 2 weeks; max: 20/2000 per day; same precautions as glipizide and metformin
</p>

#### Metaglip

Tab: Metaglip 2.5/250: glip 2.5 mg/met 250 mg Metaglip 2.5/500: glip 2.5 mg/met 500 mg Metaglip 5/500: glip 5 mg/met 500 mg Glucovance

Tab: Glucovance 1.25/250: glyb 1.25 mg/met 250 mg Glucovance 2.5/500: glyb 2.5 mg/met 500 mg Glucovance 5/500: glyb 5 mg/met 500 mg

**Comment:** *metformin* is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery <u>or</u> receiving IV iodinated contrast agents.

#### THIAZOLIDINEDIONE/BIGUANIDE COMBINATION

pioglitazone/metformin (C) <12 years: not recommended; ≥12 years: take in divided doses with meals; Previously on metformin alone: initially 15 mg/500 mg or 15 mg/850 mg once or twice daily; Previously on pioglitazone alone: initially 15 mg/500 mg bid; Previously on pioglitazone and metformin: switch on a mg/mg basis; may increase after 8-12 weeks; max: pioglitazone 45 mg and metformin 2000 mg per day; same precautions as pioglitazone and metformin
</p>

Actoplus Met, Actoplus Met R (G)

Tab: Actoplus Met 15/500: pio 15 mg/met 500 mg
Actoplus Met 15/850: pio 15 mg/met 850 mg
Actoplus Met XR 15/1000: pio 15 mg/met 1000 mg
Actoplus Met XR 30/1000: pio 30 mg/met 1000 mg

Comment: *metformin* is contraindicated with renal impairment, metabolic acidosis, ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery or receiving IV iodinated contrast agents.

rosiglitazone/metformin (C) <12 years: not recommended; ≥12 years: take in divided doses with meals; Previously on metformin alone: add rosiglitazone 4 mg/day; may increase after 8-12 weeks; Previously on rosiglitazone alone: add metformin 1000 mg/day; may increase after 1-2 weeks; Previously on rosiglitazone and metformin: switch on a mg/mg basis; may increase rosiglitazone by 4 mg and/or metformin by 500 mg per day; max: rosiglitazone 8 mg and metformin 2,000 mg per day; same precautions as rosiglitazone and metformin
</p>

Avandamet

Tab: Avandamet 2/500: rosi 2 mg/met 500 mg Avandamet 2/1,000: rosi 2 mg/met 1,000 mg Avandamet 4/500: rosi 4 mg/met 500 mg Avandamet 4/1,000: rosi 4 mg/met 1,000 mg

Comment: rosiglitazone has been withdrawn from retail pharmacies. In order to enroll and receive rosiglitazone, health care providers and patients must enroll in the Avandia-Rosiglitazone Medicines Access Program. The program limits the use of rosiglitazone to patients already being treated successfully, and those whose blood sugar cannot be controlled with other antidiabetic medicines. Metformin

is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery <u>or</u> receiving IV iodinated contrast agents.

#### THIAZOLIDINEDIONE/SULFONYLUREA COMBINATIONS

pioglitazone/glimepiride (C) <18 years: not recommended; ≥18 years: take 1 dose daily with first meal of the day; Previously on sulfonylurea alone: initially 30 mg/2 mg; Previously on pioglitazone and glimepiride: switch on a mg/mg basis; max: pioglitazone 30 mg and glimepiride 4 mg per day; Same precautions as pioglitazone and glimepiride
</p>

#### Duetact

Tab: Duetact 30/2: pio 30 mg/glim 2 mg

Duetact 304: pio 30 mg/glim 4 mg

rosiglitazone/glimepiride (C) <18 years: not recommended; ≥18 years: take 1 dose daily with first meal of the day; max: rosiglitazone 8 mg and glimepiride 4 mg per day; same precautions as rosiglitazone and glimepiride</p>

#### Avandaryl

Tab: Avandaryl 4/1: rosi 4 mg/glim 1 mg Avandaryl 4/2: rosi 4 mg/glim 2 mg Avandaryl 4/4: rosi 4 mg/glim 4 mg Avandaryl 8/2: rosi 8 mg/glim 2 mg Avandaryl 8/4: rosi 8 mg/glim 4 mg

## GLUCAGON-LIKE PEPTIDE-1 (GLP-1) RECEPTOR AGONISTS

Comment: GLP-1 receptor agonists act as an agonist at the GLP-1 receptors. They have a longer half-life than the native protein allowing them to be dosed once daily. They increase intracellular cAMP resulting in *insulin* release in the presence of increased serum concentration, decrease *glucagon* secretion, and delay gastric emptying, thus, reducing fasting, premeal, and postprandial glucose throughout the day. GLP-1 receptor agonists are not a substitute for *insulin*, not for treatment of DKA, and not for postprandial administration.

albiglutide (C) <18 years: not recommended; ≥18 years: administer by SC injection into the upper arm, abdomen, or thigh once daily; initially 30 mg once weekly on the same day; may increase to max 50 mg once weekly</p>

**Tanzeum** *Prefilled pen/syringe*: 30, 50 mg/pen pwdr for injection after reconstitution (4/carton) (preservative-free)

dulaglutide (C) <18 years: not recommended; ≥18 years: administer by SC injection into the upper arm, abdomen, or thigh once daily; initially 0.6 mg/day for 1 week; then 1.2 mg/day; may increase to max 1.8 mg/day; if more than 3 days since last dose, restart at 0.6 mg/day and titrate as before</p>

Trulicity Prefilled pen/syringe: 0.75, 1.5 mg/0.5 ml single dose (4/carton)

exenatide (C) <18 years: not recommended; ≥18 years: administer by SC injection into the upper arm, abdomen, or thigh</p>

Bydureon administer 2 mg weekly (every 7 days); inject immediately after mixing; if changing from *Byetta*, discontinue and start *Vial*: 2 mg pwdr for reconstitution (1 vial pwdr and 1 syringe prefilled w. diluents, vial connector, and needles, 4/carton)

Byetta inject within 60 minutes before AM and PM meals; initially 5 mcg/dose; may increase to 10 mcg/dose after one month

Prefilled pen: 250 mcg/ml (5, 10 mcg/dose; 60 doses, needles not included) (m-cresol, mannitol)

▶ liraglutide (C) <18 years: not recommended; ≥18 years: administer by SC injection into the upper arm, abdomen, or thigh once daily; initially 0.6 mg/day for 1 week; then 1.2 mg/day; may increase to 1.8 mg/day</p>

Victoza Prefilled pen: 6 mg/ml (3 ml; needles not included)

▶ lixisenatide (C) <18 years: not established; ≥18 years: administer SC in the upper arm, abdomen, or thigh once daily; initially 10 mcg SC x 14 days; maintenance: 20 mcg beginning on day 15; administer within one hour of the first meal of the day and the same meal of the day</p>

Adlyxin Soln for SC inj; Starter Pen: 50 mcg/ml (14 doses of 10 mcg; 3 ml); Maintenance Pen: 100 mcg/ml (14 doses of 20 mcg); Starter Pack: 1 prefilled starter pen + 1 prefilled maintenance pen; Maintenance Pack: 2 prefilled maintenance pens

Comment: Adlyxin is indicated as an adjunct to diet and exercise for T2DM. Not indicated for treatment of T1DM. Do not use with Victoza, Saxenda, other GLP-1 receptor agonists, or insulin. Contraindicated with gastroparesis and GFR <15 mL/min. Poorly controlled diabetes in pregnancy increases the maternal risk for diabetic ketoacidosis, pre-eclampsia, spontaneous abortions, preterm delivery, stillbirth and delivery complications. Poorly controlled diabetes increases the fetal risk for major birth defects, stillbirth, and macrosomia related morbidity. Adlyxin should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20% respectively.

## SODIUM-GLUCOSE CO-TRANSPORTER 2 (SGLT2) INHIBITORS

Comment: SGLT2 inhibitors block the SGLT2 protein involved in 90% of glucose reabsorption in the proximal renal tubule, resulting in increased renal glucose excretion (typically >2000 mg/dL), and lower blood glucose levels (low risk of hypoglycemia), modest weight loss, and mild reduction in blood pressure (probably due to sodium loss). These agents probably also increase insulin sensitivity, decrease gluconeogenesis, and improve *insulin* release from pancreatic beta cells. SGLT2 inhibitors are contraindicated in T1DM, and dose is decreased or contraindicated with decreased GFR, increased SCr, renal failure, ESRD, renal dialysis, metabolic acidosis, or diabetic ketoacidosis. The most common side effects are UTI, female genital mycotic infection, and increased urination. These effects may be managed with adequate hydration and genital hygiene. The SGLT2 inhibitors are not recommended in nursing females. There is potential for a hypersensitivity reaction to include angioedema and anaphylaxis. Caution with SGLT2 use due to reports of increased risk of treatment-emergent bone fractures.

canagliflozin (C) <18 years: not recommended; ≥18 years: take one tab before the first meal of the day; initially 100 mg; may titrate up to max 300 mg once daily; GFR <45 mL/min: do not initiate</p>

Invokana Tab: 100, 300 mg

Comment: Invokana is contraindicated with GFR <45 *mL/min*; If GFR 45-≤60 *mL/min*, max 100 mg once daily or consider other antihyperglycemic agents.

dapagliflozin (C) <18 years: not recommended; ≥18 years: take one tab before the first meal of the day; initially 5 mg; may increase to max 10 mg once daily
</p>

Farxiga Tab: 5, 10 mg

Comment: Farxiga is contraindicated with GFR <60 mL/min.

empagliflozin (C) <18 years: not recommended; ≥18 years: take one tab before the first meal of the day; initially 10 mg; may increase to max 25 mg once daily
</p>

Jardiance Tab: 10, 25 mg

Comment: Jardiance is contraindicated with GFR <45 mL/min.

## SODIUM-GLUCOSE CO-TRANSPORTER 2 (SGLT2) INHIBITOR/BIGUANIDE COMBINATIONS

Comment: Caution with SGLT2 use due to reports of increased risk of treatmentemergent bone fractures. *Metformin* is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery or receiving IV iodinated contrast agents.

canagliflozin/metformin (C) <18 years: not recommended; ≥18 years: take 1 dose twice daily with meals; max daily dose 300/2000; GFR 45-≤60 mL/min: canagli-flozin max 100 mg once daily or consider other antihyperglycemic agents; GFR <45 mL/min: do not initiate</p>

#### Invokamet

Tab: Invokamet 50/500: cana 50 mg/met 500 mg
Invokamet 50/1,000: cana 50 mg/met 1,000 mg
Invokamet 150/500: cana 150 mg/met 500 mg
Invokamet 150/1,000: cana 150 mg/met 1,000 mg

dapagliflozin/metformin (C) <18 years: not recommended; ≥18 years: swallow
 whole; do not crush or chew; take once daily first meal of the day; max daily dose
 10/2000
</p>

#### Xigduo XR

Tab: Xigduo XR 5/500: dapa 5 mg/met 500 mg ext-rel

Xigduo XR 5/1000: dapa 5 mg/met 1000 mg ext-rel

Xigduo XR 10/500: dapa 10 mg/met 500 mg ext-rel Xigduo XR 10/1000: dapa 10 mg/met 1000 mg ext-rel

Comment: Xigduo is contraindicated with GFR <60 *mL/min*, SCr >1.5 (males) or SCr >1.4 (females)

empagliflozin/metformin (C) <18 years: not recommended; ≥18 years: take 1 dose twice daily with meals; max daily dose 25/2000
</p>

#### Synjardy

*Tab:* **Synjardy 5/500**: *empa* 5 mg/*met* 500 mg

Synjardy 5/1000: *empa* 5 mg/*met* 1000 mg Synjardy 12.5/500: *empa* 12.5 mg/*met* 500 mg

Synjardy 12.5/1000: empa 12.5 mg/met 1000 mg

#### Synjardy XR

Tab: Synjardy XR 5/1000: empa 5 mg/met 1000 mg

Synjardy XR 12.5/1000: empa 12.5 mg/met 1000 mg

Synjardy XR 10/1000: *empa* 10 mg/*met* 1000 mg Synjardy XR 25/1000: *empa* 25 mg/*met* 1000 mg

Comment: Synjardy is contraindicated with GFR <45 mL/min, SCr >1.5 (males), or SCr >1.4 (females).

## SODIUM-GLUCOSE CO-TRANSPORTER 2 (SGLT2) INHIBITOR/DIPEPTIDYL PEPTIDASE-4 (DPP-4) INHIBITOR COMBINATIONS

Comment: Caution with SGLT2 use due to reports of increased risk of treatmentemergent bone fractures. DPP-4 inhibitors have been associated with a risk of developing and exacerbating acute pancreatitis.

dapagliflozin/saxagliptin (C) <18 years: not established; ≥18 years: initially 5/10 once daily, at any time of day, with or without food; if a dose is missed and it is ≥12 hours until the next dose, the dose should be taken; if a dose is missed and it is <12 hours until the next dose, the missed dose should be skipped and the next dose taken at the usual time.
</p>

Qtern Tab: dapa 10 mg/saxa 5 mg film-coat

Comment: Qtern should not be used during pregnancy. If pregnancy is detected, treatment with Qtern should be discontinued. It is unknown whether Qtern and/ or its metabolites are excreted in human milk. Do not use with CrCl <60 mL/min or eGFR <60 mL/min/1.73 m² or ESRD or severe hepatic impairment or history of pancreatitis.

Glvxambi

Tab: Glyxambi 10/5: empa 10 mg/lina 5 mg Glyxambi 25/5: empa 25 mg/lina 5 mg

### DIPEPTIDYL PEPTIDASE-4 (DPP-4) INHIBITOR

Comment: DPP-4 is an enzyme that degrades incretin hormones glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP). Thus, DPP-4 inhibitors increase the concentration of active incretin hormones, stimulating the release of *insulin* in a glucose-dependent manner and decreasing the levels of circulating *glucagon*. The FDA has reported that *saxagliptin*- and *alogliptin*-containing drugs may increase the risk of heart failure, especially in patients who already have cardiovascular or renal disease. Drugs in this risk group include Nesina (*alogliptin*) and Onglyza (*saxagliptin*)

alogliptin (B) <18 years: not recommended; ≥18 years: take twice daily with meals; max 25 mg/day

Nesina *Tab*: 6.25, 12.5, 25 mg

- sitagliptin (B) <18 years: not recommended; ≥18 years: as monotherapy or as combination therapy with metformin or a TZD
  </p>

Januvia 25-100 mg once daily

Tab: 25, 50, 100 mg

## DIPEPTIDYL PEPTIDASE-4 (DPP-4) INHIBITOR/BIGUANIDE COMBINATIONS

Comment: DPP-4 inhibitor/*metformin* combinations are contraindicated with renal impairment (males:  $SCr \ge 1.5 \text{ mg/dL}$ ; females:  $SCr \ge 1.4 \text{ mg/dL}$ ) or abnormal CrCl,

metabolic acidosis, ketoacidosis, or history of angioedema. Suspend metformin, prior to, and for 48 hours after, surgery or receiving IV iodinated contrast agents. Avoid in the malnourished, dehydrated, or with clinical or lab evidence of hepatic disease. For other DPP-4 and/or metformin precautions, see mfr pkg insert. The FDA has reported that saxagliptin- and alogliptin-containing drugs may increase the risk of heart failure, especially in patients who already have cardiovascular or renal disease. These drugs include: Onglyza (saxagliptin), Kombiglyze XR (saxagliptin/metformin), Nesina (alogliptin), Kazano (alogliptin/metformin), and Oseni (alogliptin/pioglitazone).

alogliptin/metformin (B) <18 years: not recommended; ≥18 years: take twice daily with meals; max alogliptin 25 mg/day, max metformin 2000 mg/day

Kazano

Tab: Kazano 12.5/500: algo 12.5 mg/met 500 mg Kazano 2.5/1000: algo 12.5 mg/met 1000 mg

▶ linagliptin/metformin (B) <18 years: not recommended; ≥18 years: Jentadueto take twice daily with meals; max linagliptin 5 mg/day, max metformin 2000 mg/day

> Tab: Jentadueto 2.5/500: lina 2.5 mg/met 500 mg film-coat Jentadueto 2.5/850: lina 2.5 mg/met 850 mg film-coat

Jentadueto 2.5/1000: lina 2.5 mg/met 1,000 mg film-coat

Jentadueto XR Currently not treated with metformin: initiate Jentadueto XR 5/1,000 once daily; Already treated with metformin: initiate Jentadueto XR 5 mg linagliptin total daily dose and a similar total daily dose of metformin once daily; Already treated with linagliptin and metformin or Jentadueto: switch to Jentadueto XR containing 5 mg of linagliptin total daily dose and a similar total daily dose of metformin once daily; max linagliptin 5 mg and metformin 2,000 mg; take as a single dose once daily; take with food; do not crush or chew; eGFR

<30 mL/min: contraindicated; eGFR 30-45 mL/min: not recommended Tab: Jentadueto 2.5/1000: lina 2.5 mg/met 1,000 mg film-coat ext-rel

Jentadueto 5/1000: lina 5 mg/met 1,000 mg film-coat ext-rel

> saxagliptin/metformin (B) <18 years: not recommended; ≥18 years: take once daily with meals; max saxagliptin 5 mg/day, max metformin 2000 mg/day; do not crush or chew

Kombiglyze XR

Tab: Kombiglyze XR 5/500: saxa 5 mg/met 500 mg Kombiglyze XR 2.5/1000: saxa 2.5 mg/met 1000 mg Kombiglyze XR 5/1000: saxa 5 mg/met 1000 mg

Comment: The FDA has reported that <code>saxagliptin</code>-containing drugs may increase the risk of heart failure, especially in patients who already have cardiovascular or renal disease. The drug <code>Kombiglyze XR</code> (<code>saxagliptin/metformin</code>) is in this risk group. <code>Metformin</code> is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend <code>metformin</code>, prior to, and for 48 hours after, surgery or receiving IV iodinated contrast agents.

sitagliptin/metformin (B) <18 years: not recommended; ≥18 years: take twice daily
 with meals; max sitagliptin 100 mg/day, max metformin 2000 mg/day
</p>

Janumet

Tab: Janumet 50/500: sita 50 mg/met 500 mg Janumet 50/1000: sita 50 mg/met 1000 mg Janumet XR

*Tab*: **Janumet XR 50/500**: *sita* 50 mg/*met* 500 mg ext-rel **Janumet XR 50/1000**: *sita* 50 mg/*met* 1000 mg ext-rel

Janumet XR 100/1000: sita 100 mg/met 1000 mg ext-rel

**Comment**: *metformin* is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery <u>or</u> receiving IV iodinated contrast agents.

### MEGLITINIDE/RIGUANIDE COMBINATION

repaglinide/metformin (C)(G) <12 years: not recommended; ≥12 years: take in 2-3 divided doses within 30 minutes before food; max 4/1000 per meal and 10/2000 per day
</p>

### Prandimet

*Tab:* **Prandimet 1/500:** *repa* 1 mg/*met* 500 mg **Prandimet 2/500:** *repa* 2 mg/*met* 500 mg

**Comment:** *metformin* is contraindicated with renal impairment, metabolic acidosis, and ketoacidosis. Suspend *metformin*, prior to, and for 48 hours after, surgery <u>or</u> receiving IV iodinated contrast agents.

## DIPEPTIDYL PEPTIDASE-4 (DPP-4) INHIBITOR/HMG-COA REDUCTASE INHIBITOR COMBINATION

Sitagliptin/simvastatin (B) <18 years: not recommended; ≥18 years: take once daily in the PM; swallow whole; adjust dose if needed after 4 weeks; Concomitant verapamil or diltiazem: max 100/10 once daily; Concomitant amiodarone, amlodipine, or ranolazine: max 100/20 once daily; HoFH: max 100/40 once daily; Chinese patients taking lipid-modifying doses (>1 gm/day niacin) of niacin-containing products: caution with 100/40 dose; increase risk of myopathy

### **Juvisync**

Tab: Juvisync 100/10: sita 100 mg/simva 10 mg Juvisync 100/20: sita 100 mg/simva 20 mg Juvisync 100/40: sita 100 mg/simva 40 mg

### DOPAMINE RECEPTOR AGONIST

bromocriptine mesylate (B) <12 years: not recommended; ≥12 years: take with food in the morning within 2 hours of waking; initially 0.8 mg once daily; may increase by 0.8 mg/week; max 4.8 mg/week; Severe psychotic disorders: not recommended Cycloset Tab: 0.8 mg

Comment: Cycloset is an adjunct to diet and exercise to improve glycemic control. Contraindicated with syncopal migraines, nursing mothers, and other ergot-related drugs.

### **Bile Acid Sequestrant**

colesevelam (B) <12 years: not recommended; ≥12 years: Monotherapy: 3 tabs bid or 6 tabs once daily or one 1.875 gm pkt bid or one 3.75 gm pkt once daily WelChol Tab: 625 mg; Pwdr for oral susp: 1.875 gm pwdr pkts (60/carton); 3.75 gm pwdr pkts (30/carton) (citrus; phenylalanine)</p>

Comment: *colesevelam* (WelChol) is indicated as an adjunctive therapy to improve glycemic control in older adolescents ≥18 years with type 2 diabetes. It can be added to *metformin*, sulfonylureas, <u>or *insulin*</u> alone <u>or</u> in combination with other antidiabetic agents.

### TYPHOID FEVER (SALMONELLA TYPHI)

### PRE-EXPOSURE PROPHYLAXIS

> typhoid vaccine, oral, live, attenuated strain

Vivotif Berna <6 years: not recommended; ≥6 years: 1 cap every other day, 1 hour before a meal, with a lukewarm (not > body temperature) or cold drink for a total of 4 doses; do not crush or chew; complete therapy at least 1 week prior to expected exposure; reimmunization recommended every 5 years if repeated exposure

Cap: ent-coat

typhoid Vi polysaccharide vaccine (C) <2 years: not recommended; ≥2 years:
 Typhim Vi 0.5 ml IM in deltoid; reimmunization recommended every 2 years if repeated exposure
</p>

Vial: 20, 50 dose; Prefilled syringe: 0.5 ml

Comment: Febrile illness may require delaying administration of the vaccine; have *epinephrine* 1:1000 readily available.

### **TREATMENT**

**Description Description *

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

cefixime (B)(G) <6 months: not recommended; 6 months-12 years, <50 kg: 8 mg/kg/day in 1-2 divided doses x 10 days; see page 552 for dose by weight table; >12 years, >50 kg: Mild illness: 15-20 mg/kg/day x 7-14 days; Severe illness: 20 mg/kg/day x 10-14 days

**Suprax** *Tab*: 400 mg; *Cap*: 400 mg; *Oral susp*: 100, 200, 500 mg/5 ml (50, 75, 100 ml) (strawberry)

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 15 mg/kg/day; Mild illness: treat x 5-7 days; Severe illness: treat x 10-14 days; max 1.5 gm/day
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

→ ofloxacin (C) <18 years: not recommended; ≥18 years: 15 mg/kg/day; Mild Illness: treat x 5-7 days; Severe Illness: treat x 10-14 days
</p>

Floxin Tab: 200, 300, 400 mg

**Comment:** *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

cefotaxime 80 mg/kg/day IM/IV x 10-14 days; max 2 gm/day

Claforan Vial: 500 mg; 1, 2 g

ceftriaxone (B)(G) 75 mg/kg/day IM/IV x 10-14 days; max 2 gm/day Rocephin Vial: 250, 500 mg; 1, 2 gm trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DŠ <12 years: not recommended;  $\geq$ 12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)



# ULCER: DIABETIC, NEUROPATHIC (LOWER EXTREMITY) ULCER: VENOUS INSUFFICIENCY (LOWER EXTREMITY)

### NUTRITIONAL SUPPLEMENT

▶ L-methylfolate calcium (as metafolin)/pyridoxyl 5-phosphate/methylcobalamin (NE) <12 years: not recommended; ≥12 years; take 1 cap daily</p>

Metanx Cap: metafo 3 mg/pyrid 35 mg/methyl 2 mg (gluten-free, yeast-free, lactose-free)

**Comment: Metanx** is indicated as adjunct treatment of endothelial dysfunction and/or hyperhomocysteinemia in patients who have lower extremity ulceration.

### DEBRIDING/CAPILLARY STIMULANT AGENT

trypsin/balsam peru/castor oil (NE) apply at least twice daily; may cover with a wet dressing

Granulex Aerosol liq: tryp 0.12 mg/bal peru 87 mg/cast 788 mg per 0.82 ml

### **GROWTH FACTOR**

► becaplermin (C) apply once daily with a cotton swab or tongue depressor; then, cover with saline moistened gauze dressing; rinse after 12 hours; then, re-cover with a clean saline dressing

**Regranex** *Gel*: 0.01% (2, 7.5, 15 gm) (parabens)

**Comment**: Store in refrigerator; do not freeze. Not for use with wounds that close by primary intention.



### **ULCER: PRESSURE/DECUBITUS**

### DEBRIDING/CAPILLARY STIMULANT AGENT

Granulex (*trypsin* 0.1 mg/*balsam peru* 72.5 mg/castor oil 650 mg per 0.82 ml) apply at least twice daily; may cover with a wet dressing *Aerosol liq*: (2, 4 oz)

### **GROWTH FACTOR**

becaplermin (C) apply once daily with a cotton swab or tongue depressor; then cover with saline moistened gauze dressing; rinse after 12 hours; then recover with a clean saline dressing

Regranex Gel: 0.01% (2, 7.5, 15 gm) (parabens)

Comment: Store in refrigerator; do not freeze. Not for use in wounds that close by primary intention.



### **ULCERATIVE COLITIS**

Comment: Standard treatment regimen is anti-infective, antispasmodic, and bowel rest; progressing to clear liquids; then to high fiber.

Parenteral Corticosteroids see page 499

Oral Corticosteroids see page 498

budesonide micronized (C)(G) <12 years: not recommended; ≥12 years: 9 mg once daily in the AM for up to 8 weeks; may repeat an 8-week course; Maintenance of remission: 6 mg once daily for up to 3 months; taper other systemic steroids when transferring to budesonide</p>

Entocort EC Cap: 3 mg ent-coat granules

Uceris Tab: 9 mg ext-rel

### RECTAL CORTICOSTEROIDS

*hydrocortisone* rectal (C) <12 years: not recommended; ≥12 years:

**Anusol-HC Suppositories** 1 supp rectally 3 times daily  $\underline{or}$  2 supp rectally twice daily for 2 weeks; max 8 weeks

Rectal supp: 25 mg (12, 24/pck)

Cortenema 1 enema q HS x 21 days or until symptoms controlled

Enema: 100 mg/60 ml (1, 7/pck)

 $\label{lem:cortifoam 1} \ applicator \ full \ qd-bid \ x \ 2-3 \ weeks \ and \ every \ 2nd \ day \ thereafter \ until \ symptoms \ are \ controlled$ 

Aerosol: 80 mg/applicator (14 applications/container)

**Proctocort** 1 supp rectally in AM and PM x 2 weeks; for more severe cases, may increase to 1 supp rectally 3 times daily or 2 supp rectally twice daily; max 4-8 weeks

Rectal supp: 30 mg (12, 24/pck)

**Comment**: Use *hydrocortisone* foam as adjunctive therapy in the distal portion of the rectum when *hydrocortisone* enemas cannot be retained.

### RECTAL CORTICOSTEROID/ANESTHETIC

### Hydrocortisone/Pramoxine

Proctofoam HC apply to anal/rectal area 3-4 times daily; max 4-8 weeks Rectal foam: hydrocort 1%/pram 1% (10 gm w. applicator)

### SALICYLATES

**▶** balsalazide disodium (B)

Colazal <5 years: not recommended; ≥5 years: 2.25 gm 3 times daily or 750 mg once daily x 8 weeks; swallow whole or sprinkle contents into applesauce

Cap: 750 mg

Comment: balsalazide 6.75 gm provides 2.4 gm of mesalamine to the colon.

Giazo take <18 years: not established; ≥18 years: 3 tabs bid; max 8 weeks

Tab: 1.1 gm (sodium 126 mg/tab) film-coat

**mesalamine** (B) <12 years: not recommended; ≥12 years:

 $\mbox{\bf Apriso}$  take 1.5 gm once daily in the AM for maintenance of remission

Cap: 0.375 gm ext-rel (phenylalanine 0.56 mg/cap)

Asacol HD 1600 mg tid x 6 weeks; maintenance 1.6 gm/day in divided doses; swallow whole; do not crush or chew

Tab: 800 mg del-rel

Canasa 1 gm qid for up to 8 weeks

Rectal supp: 1 gm del-rel (30, 42/pck)

**Delzicol** 800 mg tid x 6 weeks; maintenance once daily for up to 8 weeks; *Maintenance*: 1.6 gm/day in 2-4 divided doses once daily; swallow whole; do not crush or chew

Cap: 400 mg del-rel

Lialda 2.4-4.8 gm once daily for up to 8 weeks; maintenance 2.4 gm once daily; swallow whole; do not crush or chew

Tab: 1.2 gm del-rel

Pentasa 1 gm qid for up to 8 weeks

Cap: 250, 500 mg cont-rel

Rowasa Suppository 1 supp rectally bid x 3-6 weeks; retain for 1-3 hours or longer

*Rectal supp:* 500 mg (12, 24/pck)

Sulfite-Free Rowasa Rectal Suspension 4 gm rectally by enema q HS; retain for 8 hours x 3-6 weeks

Enema: 4 gm/60 ml (7, 14, 28/pck; kit, 7, 14, 28/pck w. wipes)

lack olsalazine (C) 1 gm/day in 2 divided doses

Dipentum Cap: 250 mg

Azulfidine initially 1-2 gm/day; increase to 3-4 gm/day in divided doses pc until clinical symptoms controlled; maintenance 2 gm/day; max 4 gm/day

Tab: 500\*mg

Azulfidine EN-Tabs initially 500 mg in the PM x 7 days; then 500 mg bid x 7 days; then 500 mg in the AM and 1 gm in the PM x 7 days; then 1 gm bid; max 4 gm/day

Tab: 500 mg ent-coat

### TUMOR NECROSIS FACTOR (TNF) BLOCKER

adalimumab (B) <18 years: not recommended; ≥18 years: initially 180 mg SC (as 4 injections in 1 day or divided over 2 days) on week 0; then 80 mg at week 2; start 40 mg every other week maintenance at week 4; only continue if evidence of clinical remission by 8 weeks; administer in abdomen or thigh; rotate sites
</p>

Humira Prefilled syringe: 20 mg/0.4 ml; 40 mg/0.8 ml single dose (2/pck; 2, 6/ starter pck) (preservative-free)

infliximab (B) <6 years: not recommended; ≥6 years: administer by IV infusion over 2 hours; 5 mg/kg weeks 0, 2, 6; then once every 8 weeks

### Remicade

*Vial*: 100 mg pwdr for reconstitution for IV infusion (preservative-free)

▶ vedolizumab (B) <18 years: not recommended; ≥18 years: administer by IV infusion over 30 minutes; 300 mg at weeks 0, 2, 6; then once every 8 weeks</p>

### Entyvio

 $\dot{V}$ ial: 300 mg (20 ml) single dose, pwdr for IV infusion after reconstitution (preservative-free)

### **ANTIDIARRHEAL AGENTS**

difenoxin/atropine (C) 2 tabs; then 1 tab after each loose stool or 1 tab q 3-4 hours; max 8 tabs/day x 2 days

Motofen Tab: dif 1 mg/atro 0.025 mg

diphenoxylate/atropine (C)(G) 2 tabs or 10 ml qid

**Lomotil** Tab: diphen 2.5 mg/atro 0.025 mg; Liq: diphen 2.5 mg/atro 0.025 mg/5 ml (2 oz w. dropper)

loperamide (B)(G)

Imodium (OTC) 4 mg initially; then 2 mg after each loose stool; max 16 mg/day Cap: 2 mg

**Imodium** A-D (OTC) 4 mg initially; then 2 mg after each loose stool; usual max 8 mg/day x 2 days

*Cplt*: 2 mg; *Liq*: 1 mg/5 ml (2, 4 oz)

▶ loperamide/simethicone (B)(G)

**Imodium Advanced (OTC)** 2 tabs chewed after first loose stool; then 1 after the next loose stool; max 4 tabs/day

Chew tab: loper 2 mg/simeth 125 mg

### **URETHRITIS: NON-GONOCOCCAL (NGU)**

Comment: The following treatment regimens for NGU are published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines. Treatment regimens are for patients ≥18 years-of-age; consult a specialist for treatment of patients <18 years-of-age. Treatment regimens are presented by generic drug name first, followed by information about brands and dose forms. All persons who have confirmed or suspected urethritis should be tested for gonorrhea and chlamydia. Males treated for NGU should be instructed to abstain from sexual intercourse for 7 days after a single-dose regimen or until completion of a 7-day regimen.

### RECOMMENDED REGIMEN: UNCOMPLICATED NGU

- azithromycin 1 gm in a single dose or 100 mg orally bid x 7 days plus
- *doxycycline* 100 mg bid x 7 days

### PERSISTENT/RECURRENT NGU

### Males Initially Treated With Azithromycin+Doxycycline

*azithromycin* 1 gm PO in a single dose

### Males Who Fail a Regimen of Azithromycin

moxifloxacin 400 mg PO once daily x 7 days

### Heterosexual Males Who Live in Areas Where T. Vaginalis is Highly Prevalent

➤ metronidazole 2 gm PO in a single dose

or

tinidazole 2 gm PO in a single dose

### ALTERNATIVE REGIMENS

> erythromycin base 500 mg PO qid x 7 days

01

*▶ erythromycin ethylsuccinate* 800 mg PO qid x 7 days

or

levofloxacin 500 mg once daily x 7 days

or

▶ ofloxacin 300 mg PO bid x 7 days

### DRUG BRANDS AND DOSE FORMS

### *▶* azithromycin (B)

**Zithromax** *Tab:* 250, 500, 600 mg; *Oral susp:* 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt:* 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak *Tab*: 3 x 500 mg tabs/pck Zithromax Z-pak *Tab*: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

### doxycycline (D)(G)

Acticlate Tab: 75, 150\*\*mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox *Cap*: 50, 75, 100 mg Oracea *Cap*: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple)

(sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

### rythromycin base (B)

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

### rythromycin ethylsuccinate (B)(G)

EryPed Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

### E.E.S. 400 Tablets Tab: 400 mg

### levofloxacin (C)

**Levaquin** *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol); *Inj conc*: 25 mg/ml for IV infusion after dilution (20, 30 ml single-use vial) (preservative-free); *Premix soln*: 5 mg/ml for IV infusion (50, 100, 150 ml) (preservative-free)

Comment: *levofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

### metronidazole (not for use in 1st; B in 2nd, 3rd)(G)

Flagyl *Tab*: 250\*, 500\*mg Flagyl 375 *Cap*: 375 mg

Flagyl ER *Tab*: 750 mg ext-rel

Comment: Alcohol is contraindicated during treatment with oral *metronidazole* and for 72 hours after therapy due to a possible *disulfiram*-like reaction (nausea, vomiting, flushing, headache).

### moxifloxacin (C)(G)

Avelox Tab: 400 mg

**Comment:** *moxifloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

### → ofloxacin (C)(G)

Floxin Tab: 200, 300, 400 mg

**Comment:** *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

### tinidazole (not for use in 1st; B in 2nd, 3rd)

Tindamax Tab: 250\*, 500\*mg

### **URINARY RETENTION: UNOBSTRUCTIVE**

### bethanechol (C) 10-30 mg tid

Urecholine *Tab*: 5, 10, 25, 50 mg

**Comment**: Contraindicated in presence of urinary obstruction. *Atropine* 0.4 mg administered SC reverses the effects of *bethanechol*.

### URINARY TRACT INFECTION (UTI, CYSTITIS: ACUTE)

### URINARY TRACT ANALGESIA

phenazopyridine (B)(G) <12 years: not recommended; ≥12 years: 95-200 mg q 6 hours prn; max 2 days</p>

AZO Standard, Prodium, Uristat (OTC) Tab: 95 mg AZO Standard Maximum Strength (OTC) Tab: 97.5 mg

Pyridium, Urogesic Tab: 100, 200 mg

### ANTI-INFECTIVES

### ⇒ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms; ≥16 years: 2 tabs q 12 hours x 7-10 days

*Tab*: 1000\*mg ext-rel

ciprofloxacin (C) <18 years: 20-40 mg/kg/day divided q 12 hours; ≥18 years: 500 mg bid x 7-10 days; max 1.5 gm/day
</p>

Cipro (G) *Tab*: 250, 500, 750 mg; *Oral susp*: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. However, in the case of <u>complicated</u> UTI, it is indicated for patients <18 years-of-age and dosed based on mg/kg body weight. Risk of tendonitis <u>or</u> tendon rupture.

fosfomycin (B) 1 pkt in 3-4 oz cold water x 1 dose

Monurol Single-dose pkts: 1-3 gm (mandarin orange) (sucrose)

> levofloxacin (C) <18 years: not recommended; ≥18 years: 250 mg once daily x 3 days</p>

**Levaquin** *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol); *Inj conc*: 25 mg/ml for IV infusion after dilution (20, 30 ml single-use vial) (preservative-free); *Premix soln*: 5 mg/ml for IV infusion (50, 100, 150 ml) (preservative-free)

Comment: levofloxacin is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

Comment: *norfloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

ofloxacin (C)(G) <18 years: not recommended; ≥18 years: 200 mg q 12 hours x 3 days
</p>

Floxin Tab: 200, 300, 400 mg

Floxin UroPak Tab: 200 mg (6/pck)

**Comment:** *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

Primsol <6 months: not recommended; ≥6 months-12 years: 10 mg/kg/day in 2 divided doses x 10 days; >12 years: 100 mg q 12 hours or 200 mg once daily x 10 days

Oral soln: 50 mg/5 ml (bubble gum) (dye-free, alcohol-free)

Proloprim <12 years: not recommended; ≥12 years: 100 mg q 12 hours or 200 mg once daily x 10 days

Tab: 100, 200 mg

Trimpex <12 years: not recommended; ≥12 years: 100 mg q 12 hours <u>or</u> 200 mg once daily x 10 days

*Tab*: 100 mg

► trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DŚ <12 years: not recommended; ≥12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid; >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

### ANTI-INFECTIVES: STANDARD REGIMEN FOR UTI

acetyl sulfisoxazole (C)(G)

Gantrisin <12 years: not recommended;  $\geq$ 12 years: initially 2-4 gm in a single or divided doses; then 4-8 gm/day in 4-6 divided doses x 7 days

Tab: 500 mg

Gantrisin<2 months: not recommended; ≥2 months: initial dose 75 mg/kg/day; then 150 mg/kg/day in 4-6 divided doses x 7 days; max 6 gm/day

Oral susp: 500 mg/5 ml (4, 16 oz); Syr: 500 mg/5 ml (16 oz)

amoxicillin (B)(G) <40 kg (88 lb): 20-40 mg/kg/day in 3 divided doses x 10 days or
 25-45 mg/kg/day in 2 divided doses x 10 days; see page 543 for dose by weight table;
 ≥40 kg: 500-875 mg bid or 250-500 mg tid x 10 days
</p>

Amoxil Cap: 250, 500 mg; Tab: 875\*mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (strawberry); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)

Moxatag Tab: 775 mg ext-rel

Trimox Tab: 125, 250 mg; Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry)

⇒ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table; ≥40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

Augmentin XR <16 years: use other forms; ≥16 years: 2 tabs q 12 hours x 7-10 days

Tab: 1000\*mg ext-rel

- ampicillin (B) <12 years: 50-100 mg/kg/day in 4 divided doses x 7-14 days; see page 547 for dose by weight table; ≥12 years: 500 mg qid x 7-14 days</p>
  - Omnipen, Principen Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (100, 150, 200 ml) (fruit)
- Carbenicillin (B) <12 years: not recommended; ≥12 years: 1-2 tabs qid x 7-14 days
   Geocillin Tab: 382 mg
  </p>
- cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; ≥12 years: 250-500 mg q 8 hours x 10 days; max 2 gm/day</p>

Tab: 500 mg; Cap: 250, 500 mg; Susp: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended; ≥16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

Tab: 375, 500 mg ext-rel

cefadroxil (B) <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in a single or 2 divided doses x 10 days Duricef Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml</p>

Ouricet Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml (75, 100 ml) (orange-pineapple)

cefixime (B)(G) <6 months: not recommended; 6 months-12 years, <50 kg: 8 mg/kg/day in 1-2 divided doses x 10 days; see page 552 for dose by weight table; >12 years, >50 kg: 400 mg once daily x 10 days

**Suprax** *Tab*: 400 mg; *Cap*: 400 mg; *Oral susp*: 100, 200, 500 mg/5 ml (50, 75, 100 ml) (strawberry)

- cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 7 days: see page 553 for dose by weight table; ≥12 years: 100 mg bid x 7 days</p>
- cefuroxime axetil (B)(G) <3 months: not recommended; 3 months-12 years: 20-30 mg/kg/day in 2 divided doses x 7-10 days; see page 556 for dose by weight table;  $\geq$ 12 years: 125-250 mg bid x 7-10 days
- Ceftin Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)

  cephalexin (B)(G) <12 years: 25-50 mg/kg/day in 4 divided doses x 7-10 days; see page 557 for dose by weight table; ≥12 years: 500 mg bid x 7-10 days

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

ciprofloxacin (C) <18 years: not recommended; ≥18 years: 500 mg bid or 1000 mg
 XR once daily x 3-14 days
</p>

Cipro (G) Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry)

Cipro XR Tab: 500, 1000 mg ext-rel

ProQuin XR Tab: 500 mg ext-rel

Comment: *ciprofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

doxycycline (D)(G) <8 years: not recommended; ≥8 years, <100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb/day in a single or 2 divided doses x 7-10 days; ≥8 years, ≥100 lb: 100 mg bid x 7-10 days
</p>

Acticlate Tab: 75, 150\*\*mg

Adoxa Tab: 50, 75, 100, 150 mg ent-coat

Doryx Tab: 50, 75, 100, 150, 200 mg del-rel

Monodox Cap: 50, 75, 100 mg

Oracea Cap: 40 mg del-rel

Vibramycin Tab: 100 mg; Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)

Vibra-Tab Tab: 100 mg film-coat

Comment: *doxycycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not take with antacids, calcium supplements, milk or other dairy, or within 2 hours of taking another drug.

enoxacin (C) <18 years: not recommended; ≥18 years: 200 mg q 12 hours x 7 days Penetrex Tab: 200, 400 mg

Comment: *enoxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

> levofloxacin (C) <18 years: not recommended; ≥18 years: 250 mg once daily x 7-10 days</p>

**Levaquin** *Tab*: 250, 500, 750 mg; *Oral soln*: 25 mg/ml (480 ml) (benzyl alcohol); *Inj conc*: 25 mg/ml for IV infusion after dilution (20, 30 ml single-use vial) (preservative-free); *Premix soln*: 5 mg/ml for IV infusion (50, 100, 150 ml) (preservative-free)

Comment: *levofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

lomefloxacin (C) <18 years: not recommended; ≥18 years: 400 mg once daily x 10 days</p>

Maxaquin Tab: 400 mg

Comment: *lomefloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

minocycline (D)(G) <8 years: not recommended; ≥8 years, <100 lb: 2 mg/lb on first day in 2 divided doses, followed by 1 mg/lb q 12 hours x 9 more days; ≥8 years, >100 lb: 100 mg q 12 hours x 10 days

**Dynacin** *Cap*: 50, 100 mg

Minocin Cap: 50, 75, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%)

Comment: *minocycline* is contraindicated <8 years-of-age, in pregnancy, and lactation (discolors developing tooth enamel). A side effect may be photosensitivity (photophobia). Do not give with antacids, calcium supplements, milk or other dairy, or within two hours of taking another drug.

malidixic acid (B) <3 months: not recommended; ≥3 months-<12 years: 25 mg/lb/day in 4 divided doses x 7-14 days; ≥12 years: 1 gm qid x 7-14 days
</p>

NegGram Tab: 250, 500 mg; 1 g; Cap: 250, 500 mg; Oral susp: 250 mg/5 ml 

→ nitrofurantoin (B)(G)

Furadantin <1 month: not recommended; ≥1 month-12 years: 5-7 mg/kg/day in 4 divided doses x 7-10 days; *see page* 571 *for dose by weight table*; >12 years: 50-100 mg qid x 7-10 days

Oral susp: 25 mg/5 ml (60 ml)

Macrobid <12 years: not recommended; ≥12 years: 100 mg q 12 hours x 7-10 days

*Cap*: 100 mg

Macrodantin <12 years: not recommended; ≥12 years: 50-100 mg qid x 5-7 days; long-term use 50-100 mg q HS

Cap: 25, 50, 100 mg

> norfloxacin (C) <18 years: not recommended; ≥18 years: 400 mg x 7-10 days Noroxin Tab: 400 mg

Comment: *norfloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

ofloxacin (C)(G) <18 years: not recommended; ≥18 years: 200 mg q 12 hours x 7-10 days
</p>

Floxin Tab: 200, 300, 400 mg

**Comment**: *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis <u>or</u> tendon rupture.

Primsol <6 months: not recommended; ≥6 months-12 years: 10 mg/kg/day in 2 divided doses x 10 days; >12 years: 100 mg q 12 hours or 200 mg once daily x 10 days

Oral soln: 50 mg/5 ml (bubble gum) (dye-free, alcohol-free)

Proloprim <12 years: not recommended; ≥12 years: 100 mg q 12 hours or 200 mg once daily x 10 days

Tab: 100, 200 mg

Trimpex <12 years: not recommended; ≥12 years: 100 mg q 12 hours or 200 mg once daily x 10 days

Tab: 100 mg

trimethoprim/sulfamethoxazole (D)(G)

Bactrim, Septra <12 years: not recommended; ≥12 years: 2 tabs bid x 10 days Tab: trim 80 mg/sulfa 400 mg\*

Bactrim DS, Septra DS <12 years: not recommended; ≥12 years: 1 tab bid x 10 days

Tab: trim 160 mg/sulfa 800 mg\*

Bactrim Pediatric Suspension, Septra Pediatric Suspension <2 months: not recommended; ≥2 months-12 years: 40 mg/kg/day of *sulfamethoxazole* in 2 doses bid: >12 years: use tabs

Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)

### PARENTERAL THERAPY

Pertapenem (B) <18 years: not recommended; ≥18 years: 1 gm once daily; CrCl <30 mL/min: 500 mg once daily; treat x 10-14 days; may switch to an oral antibiotic after 3 days if warranted; IV infusion: administer over 30 minutes; IM injection: reconstitute</p>

Invanz Vial: 1 gm pwdr for reconstitution

### LONG-TERM PROPHYLACTIC/SUPPRESSION THERAPY

methenamine hippurate (C) <6 years: not recommended; ≥6-12 years: 1/2 tab bid; 
 >12 years: 1 tab bid

Hiprex, Urex Tab: 1 g

### URINARY TRACT ANALGESIC/ANTISPASMODICS

hyoscyamine (C)(G)

Anaspaz <2 years: not recommended; 2-12 years: 0.0625-0,125 mg q 4 hours prn; max 0.75 mg/day; >12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day

*Tab*: 0.125\*mg

Levbid <12 years: not recommended; ≥12 years: 1-2 tabs q 12 hours prn; max 4 tabs/day

Tab: 0.375\*mg ext-rel

Levsin <6 years: not recommended; 6-12 years: 1 tab q 4 hours prn; ≥12 years: 1-2 tabs q 4 hours prn; max 12 tabs/day

Tab: 0.125\*mg

Levsin Drops 3.4 kg: 4 drops q 4 hours prn; max 24 drops/day; 5 kg: 5 drops q 4 hours prn; max 30 drops/day; 7 kg: 6 drops q 4 hours prn; max 36 drops/day; 10 kg: 8 drops q 4 hours prn; max 40 drops/day

Oral drops: 0.125 mg/ml (15 ml) (orange) (alcohol 5%)

Levsin Elixir <10 kg: use drops; 10-19 kg: 1.25 ml q 4 hours prn; 20-39 kg: 2.5 ml q 4 hours prn; 40-49 kg: 3.75 ml q 4 hours prn; 50-60 kg: 5 ml q 4 hours prn; >60 kg: 5-10 ml q 4 hours prn

Elix: 0.125 mg/5 ml (16 oz) (orange) (alcohol 20%)

 $\label{levsinex} Levsinex SL <2~years: not recommended; 2-12~years: 1~tab~q~4~hours; max~6~tabs/day; >12~years: 1-2~tabs~q~4~hours~SL~or~PO; max~12~tabs/day$ 

SL tab: 0.125 mg

Levsinex Timecaps <2 years: not recommended; 2-12 years: 1 cap q 12 hours; max 2 caps/day; >12 years: 1-2 caps q 12 hours; may adjust to 1 cap q 8 hours *Cap*: 0.375 mg time-rel

NuLev <2 years: not recommended; 2-12 years: dissolve 1 tab on tongue, with or without water, q 4 hours prn; max 6 tabs/day; >12 years: dissolve 1-2 tabs on tongue, with or without water, q 4 hours prn; max 12 tabs/day

ODT: 0.125 mg (mint) (phenylalanine)

▶ methenamine/phenyl salicylate/methylene blue/benzoic acid/atropine sulfate/hyos-cyamine (C)(G) <6 years: not recommended; ≥6 years: 2 tabs qid prn</p>

 $\begin{tabular}{ll} Urised Tab: meth 40.8 mg/phenyl salic 18.1 mg/meth blue 5.4 mg/benz acid 4.5 mg/atro sulf 0.03 mg/hyoscy 0.03 mg \end{tabular}$ 

Comment: Urised imparts a blue-green color to urine which may stain fabrics.

> methenamine/phenyl salicylate/methylene blue/na phosphate monobasic/hyoscy-amine (C) <6 years; not recommended; ≥6 years; 1 cap qid prn

Uribel Cap: meth 118 mg/phenyl salic 36 mg/meth blue 10 mg/sod phos mono 40.8 mg/hyoscy 0.12 mg

methenamine/phenyl salicylate/methylene blue/sod biphosphate/hyoscyamine (C) <6 years: not recommended; ≥6 years: 1 tab qid prn</p>

Urelle Cap: meth 81 mg/phenyl salic 32.4 mg/meth blue 10.8 mg/sod biphos 40.8 mg/hyoscy 0.12 mg

phenazopyridine (B)(G) <12 years: not recommended; ≥12 years: 95-200 mg q 6 hours prn; max 2 days</p>

AZO Standard, Prodium, Uristat (OTC) Tab: 95 mg

AZO Standard Maximum Strength (OTC) Tab: 97.5 mg

Pyridium, Urogesic Tab: 100, 200 mg

Comment: *phenazopyridine* imparts an orange-red color to urine which may stain fabrics.

### PROPHYLACTIC/SUPPRESSION THERAPY

→ methenamine hippurate (C) 6 years: 0.25 gm/30 lb qid; 6-12 years: 25-50 mg/kg/day in 2 divided doses or 0.5-1 gm bid; >12 years: 1 gm bid

Hiprex Tab: 1 g; Oral susp: 500 mg/5 ml (480 ml)

### **UROLITHIASIS (RENAL CALCULI, KIDNEY STONES)**

Acetaminophen for IV Infusion see Pain page 296 Oral Prescription NSAIDs see page 490 Other Oral Analgesics see Pain page 298 Opioids and Other Analgesics see page 298

### ANTISPASMODIC

► flavoxate (B)(G)

Urispas 100-200 mg tid-qid

### PARENTERAL NARCOTICS

### Aid to Stone Passage: Alpha-1A Blockers

- ➤ alfuzosin (B)(G) 10 mg once daily taken immediately after the same meal each day UroXatral Tab: 10 mg ext-rel
- ▶ tamsulosin (B)(G) initially 0.4 mg once daily; may increase to 0.8 mg once daily after 2-4 weeks if needed

Flomax Cap: 0.4 mg

Comment: May take Flomax 0.4 mg with Avodart 0.5 mg once daily as combination therapy.

buprenorphine (C)

Buprenex administer <2 years: not recommended; 2-12 years: 2-6 mcg/kg IM/ IV q 4-6 hours prn; >12-18 years: 0.1-0.2 mg IM or IV q 3-4 hours prn; may repeat once (up to 0.3 mg) if required, 30 to 60 minutes after initial dose; >18 years: 0.3 mg IM or IV q 6 hours prn

Amp: 0.3 mg/ml (1 ml)

Comment: Buprenex is approximately equivalent to 10 mg morphine sulfate in analgesic and respiratory depressant effects.

meperidine (B; D in 2nd, 3rd)(IÎ)(G) <12 years: 0.5-0.8 mg/lb q 3-4 hours prn; ≥12 years: 50-100 mg IM q 3-4 hours prn
</p>

Demerol Tubex: 25, 50, 75, 100 mg/ml (2 ml); Vial: 25 mg/ml (1 ml); 50 mg/ml (1, 30 ml); 75 mg/ml; (1 ml); 100 mg/ml (1, 20 ml); Amp: 25, 50, 75, 100 mg/ml (1 ml)

morphine sulfate (C)(II)(G) 10-15 mg q 3-4 hours prn

Vial: 1 mg/ml (1, 60 ml); 5 mg/ml (1 ml); 8 mg/ml (1 ml); 10 mg/ml (1, 2, 10 ml); 15 mg (1, 20 ml); Amp: 8 mg/ml (1 ml); 10 mg/ml (1 ml); 15 mg/ml (1 ml)

### PREVENTION OF CALCIUM STONES

chlorothiazide (B)(G) 50 mg bid

Diuril Tab: 250\*, 500\*mg; Oral susp: 250 mg/5 ml (237 ml)

▶ hydrochlorothiazide (B)(G) 50 mg bid

Esidrix *Tab*: 25, 50 mg Microzide *Cap*: 12.5 mg

### PREVENTION OF CYSTINE STONES

Penicillamine (D) <12 years: not recommended; ≥12 years: 1-4 gm/day Cuprimine Cap: 125, 250 mg Depen Titratable tab: 250 mg

potassium citrate (C)(G)30 mEq qid

Urocit-K Tab: 5, 10, 15 mEq ext-rel

Comment: *potassium citrate* is contraindicated in hyperkalemia.

### PREVENTION OF URIC ACID STONES

allopurinol (C)(G) <12 years: not recommended; ≥12 years: 200-300 mg in 1-3 doses; max 800 mg/day</p>

**Zyloprim** *Tab*: 100\*, 300\*mg

> potassium citrate (C)(G) 30 mEq qid

Urocit-K Tab: 5, 10, 15 mEq ext-rel

Comment: *potassium citrate* is contraindicated in hyperkalemia. Encourage patients to limit salt intake and maintain liberal hydration (urine volume should be at least 2 liters/day). Target urine pH is 6.0-7.0 and urine citrate at least 320 mg/day and close to the normal mean of 640 mg/day. Take with food.



## URTICARIA: MILD, CHRONIC IDIOPATHIC (CIU), ACUTE

Oral Prescription Drugs for the Management of Allergy, Cough, and Cold Symptoms see page 523

Topical Corticosteroids see page 494

Oral Corticosteroids see page 498

Parenteral Corticosteroids see page 499

### **SECOND GENERATION ANTIHISTAMINES**

**Comment**: Second generation antihistamines are sedating, but much less so than the first generation antihistamines. All antihistamines are excreted into breast milk.

cetirizine (C)(OTC)(G) <6 years: not recommended; ≥6-<65 years: initially 5-10 mg once daily; ≥65 years: 5 mg once daily</p>

Children's Zyrtec Chewable Chew tab: 5, 10 mg (grape)

Children's Zyrtec Allergy Syrup Syr: 1 mg/ml (4 oz) (grape, bubble gum)

(sugar-free, dye-free)

Zyrtec Tab: 10 mg

Zyrtec Hives Relief Tab: 10 mg

Zyrtec Liquid Gels Liq gel: 10 mg

► desloratadine (C)

Clarinex <6 years: not recommended; ≥6 years: 1/2-1 tab once daily *Tab*: 5 mg

Clarinex RediTabs <6 years: not recommended; 6-12 years: 2.5 mg once daily; ≥12 years: 5 mg once daily

ODT: 2.5, 5 mg (tutti-frutti) (phenylalanine)

Clarinex Syrup <6 months: not recommended; 6-11 months: 1 mg (2 ml) once daily; 1-5 years: 1.25 mg (2.5 ml) once daily; 6-11 years: 2.5 mg (5 ml) once daily;  $\geq$ 12 years: 5 mg (10 ml) once daily

Tab: 0.5 mg per ml (4 oz) (tutti-frutti) (phenylalanine)

Desloratadine ODT

fexofenadine (C)(OTC)(G) 6 months-2 years: 15 mg bid; CrCl ≤90 mL/min: 15 mg once daily; 2-11 years: 30 mg bid; CrCl ≤90 mL/min: 30 mg once daily ≥12 years and older: ≥ 12 years: 60 mg once daily-bid or 180 mg once daily; CrCl <90 mL/min: 60 mg once daily Allegra Tab: 30, 60, 180 mg film-coat
</p>

Allegra Allergy *Tab*: 60, 180 mg film-coat Allegra ODT *ODT*: 30 mg (phenylalanine)

Allegra Oral Suspension Oral susp: 30 mg/5 ml (6 mg/ml) (4 oz)

▶ loratadine (C)(OTC)(G) <2 years: not recommended; 2-5 years: 5 mg once daily; ≥6 years: 5 mg bid or 10 mg once daily; Hepatic or Renal Insufficiency: (see mfr pkg insert)</p>

Children's Claritin Chewables Chew tab: 5 mg (grape) (phenylalanine)

Children's Claritin Syrup 1 mg/ml (4 oz) (fruit) (sugar-free, alcohol-free, dye-free; sodium 6 mg/5 ml)

Claritin Tab: 10 mg

Claritin Hives Relief Tab: 10 mg

Claritin Liqui-Gels Lig gel: 10 mg

Claritin RediTabs 12 Hours ODT: 5 mg (mint)

Claritin RediTabs 24 Hours ODT: 10 mg (mint)

▶ levocetirizine (B)(OTC) administer dose in the PM; Seasonal Allergic Rhinitis: <2 years: not recommended; may start at ≥2 years; Chronic Idiopathic Urticaria (CIU), Perennial Allergic Rhinitis: <6 months: not recommended; may start at ≥ 6 months; Dosing by Age: 6 months-5 years: max 1.25 mg once daily; 6-11 years: max 2.5 mg once daily; 212 years: 2.5-5 mg once daily; Renal Dysfunction <12 years: contraindicated; Renal Dysfunction ≥12 years: CrCl 50-80 ml/min: 2.5 mg once daily; CrCl 30-50 mL/min: 2.5 mg every other day; CrCl: 10-30 mL/min: 2.5 mg twice weekly (every 3-4 days); CrCl <10 mL/min, ESRD or hemodialysis: contraindicated;</p>

Xyzal Tab: 5\*mg

Xyzal Oral Solution Oral soln: 0.5 mg/ml (150 ml)

### **VAGINAL IRRITATION: EXTERNAL**

- ▶ Replens Vaginal Moisturizer (NE)(OTC) apply as needed; for external use only Bottle: 2 oz
- ➤ Vagisil Intimate Moisturizer (NE)(OTC) apply as needed; for external use only Bottle: 2 oz

Comment: Vagisil has no effect on condom integrity.

### **VERTIGO**

meclizine (B)(G) <12 years: not recommended; ≥12 years: 25-100 mg/day in divided doses
</p>

Antivert Tab: 12.5, 25, 50\*mg

**Bonine (OTC)** Cap: 15, 25, 30 mg; Tab: 12.5, 25, 50 mg; Chew tab/Film-coat tab:

25 mg

Dramamine II (OTC) Tab: 25\*mg

Zentrip Strip: 25 mg orally-disint

## VITILIGO

### REPIGMENTATION ENHANCEMENT

methoxsalen (C) <12 years: not recommended; ≥12 years: apply to well-defined area of vitiligo; then expose area to source of UVA (ultraviolet A) or sunlight; initial exposure no more than 1/2 predicted minimal erythemal dose; repeat weekly
 Oxsoralen Lotn: 1% (30 ml)
</p>

**Comment**: *methoxsalen* may only be applied by a health care provider. Do not dispense to patient.

trioxsalen (C) <12 years: not recommended; ≥12 years: 10 mg daily, taken 2-4
hours before ultraviolet light exposure; max 14 days and 28 tabs
</p>

Trisoralen Tab: 5 mg

Depigmenting Agents see Hyperpigmentation page 200

### WART: COMMON (VERRUCA VULGARIS)

► salicylic acid (NE)(G)

**Duo Film (OTC)** apply daily-bid; max 12 weeks; *Liq*: 17% (1/2 oz w. applicator)

Duo Film Patch for Kids (OTC) apply 1 patch q 48 hours; max 12 weeks Patch: 40% (18/pck)

Occlusal HP (OTC) apply daily-bid; max 12 weeks

Liq: 17% (10 ml w. applicator)

Wart-Off (OTC) apply one drop at a time to sufficiently cover wart, let dry; repeat 1-2 times daily; max 12 weeks

Liq: 17% (0.45 oz)

### WART: PLANTAR (VERRUCA PLANTARIS)

► salicylic acid (NE)(G)

Duo Plant Gel (OTC) apply daily bid; max 12 weeks

Gel: 17% (1/2 oz)

**Mediplast** cut to size of wart and apply; remove q 1-2 days, peel keratin, and reapply; repeat as often as needed

Occlusal-HP (OTC) apply qd-bid; max 12 weeks

Lig: 17% (10 ml w. applicator)

Wart-Off (OTC) apply one drop at a time to sufficiently cover wart, let dry; repeat 1-2 times daily; max 12 weeks

Lig: 17% (0.45 oz)

trichloroacetic acid (NE) apply after wart is pared and repeat weekly

## WART: VENEREAL, HUMAN PAPILLOMAVIRUS (HPV), CONDYLOMA ACUMINATA

Comment: This section contains treatment regimens for genital warts published in the 2015 CDC Sexually Transmitted Diseases Treatment Guidelines as well as other

treatment options. Due to the increased risk of cervical cancer with HPV, Pap smears should be done q 3 months during active disease and then q 3-6 months for the next 2 years.

### PATIENT-APPLIED AGENTS

### Regimen 1

imiquimod (C) <12 years: not recommended; ≥12 years:

Aldara (G) rub into lesions before bedtime and remove with soap and water 6-10 hours later; treat 3 times per week; max 16 weeks

Crm: 5% (12 single-use pkts/carton)

Zyclara rub into lesions before bedtime and remove with soap and water 8 hours later; treat 3 times per week; max 1 packet per treatment; max 8 weeks *Crm*: 3.75% (28 single-use pkts/carton) (parabens)

### Regimen 2

podofilox 0.5% cream (C) apply bid (q 12 hours) x 3 days; then discontinue for 4 days; may repeat if needed; max 4 treatment cycles
Condylox Soln: 0.5% (3.5 ml); Gel: 0.5% (3.5 gm)

### Regimen 3

Sinecatechins 15% ointment (C) apply to each lesion tid for up to 16 weeks Veregen Oint: 15% (15, 30 gm)

### PROVIDER-ADMINISTERED AGENTS

### Regimen 1

Cryotherapy with liquid nitrogen  $\underline{or}$  cryoprobe; repeat applications every 1-2 weeks as needed

### Regimen 2

► trichloroacetic acid (TCA) 80-90% (C) apply to warts; repeat weekly if needed Comment: TCA is the preferred treatment during pregnancy. Immediate application of sodium bicarbonate paste following treatment decreases pain.

### Regimen 3

▶ podofilox 0.5% cream (C) apply bid (q 12 hours) x 3 days; then discontinue for 4 days; may repeat if needed; max 4 treatment cycles
Condylox Soln: 0.5% (3.5 ml); Gel: 0.5% (3.5 gm)

### Regimen 4

interferon alfa-n3 (C) 0.05 ml injected into base of wart twice weekly for up to 8 weeks; max 0.5 ml/session (20 warts/session)

Alferon N Vial: 5 million units/ml (1 ml)

### Regimen 5

▶ interferon alfa-2b (C) 0.1 ml injected into base of wart three times weekly for up to 3 weeks; max 0.5 ml/session (5 warts/session)

Intron A Vial: 1 million units/0.1 ml (0.5, 1 ml)

### Regimen 6

Surgical removal either by tangential scissor excision, tangential shave excision, curettage, or electrosurgery

### **WHIPWORM (TRICHURIASIS)**

### ANTHELMINTICS

- albendazole (C) take with a meal; may crush and mix with food; may repeat in 3 weeks if needed; <2 years: 200 mg once daily x 3 days; 2-12 years: 400 mg once daily x 3 days; >12 years: 400 mg as bid x 3 days;
  Albenza Tab: 200 mg
- ightharpoonup mebendazole (C)(G) take with a meal; may crush and mix with food; may repeat in 3 weeks if needed; <2 years: not recommended; ≥2 years: 100 mg bid x 3 days

Emverm Chew tab: 100 mg Vermox (G) Chew tab: 100 mg

pyrantel pamoate (C) take with a meal; may open capsule and sprinkle or mix with food; treat x 3 days; 11 mg/kg/dose; max 1 gm/dose; 25-37 lb: 1/2 tsp/dose; 38-62 lb: 1 tsp/dose; 63-87 lb: 1 tsp/dose; 88-112 lb: 2 tsp/dose; 113-137 lb: 2 tsp/dose; 138-162 lb: 3 tsp/dose; 163-187 lb: 3 tsp/dose; >187 lb: 4 tsp/dose

Antiminth (OTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (60 ml)

Pin-X (OTC) Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (30 ml)

thiabendazole (C) take with a meal; may crush and mix with food; treat x 7 days; max 1.5 gm/dose; max 3 g/day; <30 lb: consult mfr pkg insert; ≥30 lb: 25 mg/kg/dose bid; 30-50 lb: 250 mg bid meals; >50 lb: 10 mg/lb/dose bid

Mintezol Chew tab: 500\*mg (orange); Oral susp: 500 mg/5 ml (120 ml) (orange) Comment: *thiabendazole* is not for prophylaxis. May impair mental alertness. May not be available in the US.



### **WOUND: INFECTED, NON-SURGICAL, MINOR**

### TETANUS PROPHYLAXIS

### Previously Immunized (within previous 5 years)

▶ tetanus toxoid vaccine (C) 0.5 ml IM x 1 dose
Vial: 5 Lf units/0.5 ml (0.5, 5 ml); Prefilled syringe: 5 Lf units/0.5 ml (0.5 ml)

### **Not Previously Immunized**

see Tetanus page 398

### TOPICAL ANTI-INFECTIVES

> mupirocin (B)(G) <12 years: not recommended; ≥12 years: apply to lesions bid Bactroban Oint: 2% (22 gm); Crm: 2% (15, 30 gm)

Centany Oint: 2% (15, 30 gm)

### ORAL ANTI-INFECTIVES

azithromycin (B) <12 years: 10 mg/kg x 1 dose on day 1, then 5 mg/kg/day on days
 2-5; see page 548 for dose by weight table; max 500 mg/day; ≥12 years: 500 mg x 1
 dose on day 1, then 250 mg daily on days 2-5 or 500 mg daily x 3 days or Zmax 2
 gm in a single dose
</p>

**Zithromax** *Tab*: 250, 500, 600 mg; *Oral susp*: 100 mg/5 ml (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry); *Pkt*: 1 gm for reconstitution (cherry-banana)

Zithromax Tri-pak Tab: 3 x 500 mg tabs/pck

Zithromax Z-pak Tab: 6 x 250 mg tabs/pck

Zmax Oral susp: 2 gm ext-rel for reconstitution (cherry-banana) (148 mg Na<sup>+</sup>)

→ amoxicillin/clavulanate (B)(G)

Augmentin <40 kg: 40-45 mg/kg/day divided tid x 10 days or 90 mg/kg/day divided bid x 10 days; see page 545 for dose by weight table;  $\geq$ 40 kg: 500 mg tid or 875 mg bid x 10 days

*Tab*: 250, 500, 875 mg; *Chew tab*: 125, 250 mg (lemon-lime); 200, 400 mg (cherry-banana) (phenylalanine); *Oral susp*: 125 mg/5 ml (banana), 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange) (phenylalanine)

Augmentin ES-600 <3 months: not recommended;  $\geq$ 3 months, <40 kg: 90 mg/kg/day divided q 12 hours x 10 days; see page 546 for dose by weight table;  $\geq$ 40 kg: not recommended

*Oral susp*: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)

**Augmentin XR** <16 years: use other forms;  $\geq$ 16 years: 2 tabs q 12 hours x 7-10 days

*Tab*: 1000\*mg ext-rel

Example cefaclor (B)(G) <1 month: not recommended; 1 month-12 years: 20-40 mg/kg divided bid x 10 days; see page 549 for dose by weight table; max 1 gm/day; ≥12 years: 250-500 mg q 8 hours x 10 days; max 2 gm/day

*Tab*: 500 mg; *Cap*: 250, 500 mg; *Susp*: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)

Cefaclor Extended Release <16 years: not recommended;  $\geq$ 16 years: 500 mg bid x 10 days (clinically equivalent to 250 mg immed-rel caps tid); swallow whole; take with meals

Tab: 375, 500 mg ext-rel

cefadroxil <12 years: 30 mg/kg/day in 2 divided doses x 10 days; see page 550 for dose by weight table; ≥12 years: 1-2 gm in a single of 2 divided doses x 10 days

Duricef Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml (75, 100 ml) (orange-pineapple)

cefdinir (B) <6 months: not recommended; 6 months-12 years: 14 mg/kg/day in 1-2 divided doses x 10 days; see page 551 for dose by weight table; ≥12 years: 300 mg bid x 10 days or 600 mg daily x 10 days</p>

Omnicef Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)

- cefpodoxime proxetil (B) <2 months: not recommended; 2 months-12 years: 10 mg/kg/day (max 400 mg/dose) or 5 mg/kg/day bid (max 200 mg/dose) x 7-14 days; see page 553 for dose by weight table; >12 years: 400 mg bid x 7-14 days
- cefprozil (B) <2 years: not recommended; 2-12 years: 7.5 mg/kg-15 mg/kg q 12 hours x 10 days; see page 554 for dose by weight table; >12 years: 250-500 mg q 12 hours or 500 mg daily x 10 days

**Cefzil** *Tab*: 250, 500 mg; *Óral susp*: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum, phenylalanine)

**>** cephalexin (B)(G) <12 years: 50 mg/kg/day in 4 divided doses x 10 days; see page 557 for dose by weight table; ≥12 years: 2 gm 1 hour before procedure

Keflex Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml) (strawberry)

clarithromycin (C)(G) <6 months: not recommended; ≥6 months-12 years: 7.5 mg/kg bid x 7-10 days; see page 558 for dose by weight table; >12 years: 500 mg bid or 500 mg ext-rel daily x 7-10 days

Biaxin Tab: 250, 500 mg

Biaxin Oral Suspension *Oral susp*: 125, 250 mg/5 ml (50, 100 ml) (fruit punch) Biaxin XL *Tab*: 500 mg ext-rel

dirithromycin (C)(G) <12 years: not recommended; ≥12 years: 500 mg daily x 7
 days
</p>

Dvnabac Tab: 250 mg

erythromycin base (B)(G) <45 kg: 30-50 mg in 2-4 divided doses x 7 days; ≥45 kg: 500 mg q 6 hours x 7 days</p>

Ery-Tab Tab: 250, 333, 500 mg ent-coat

PCE Tab: 333, 500 mg

> erythromycin ethylsuccinate (B)(G) 30-50 mg/kg/day in 4 divided doses x 7 days; may double dose with severe infection; max 100 mg/kg/day or 400 mg qid; see page 563 for dose by weight table

EryPed *Óral susp*: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); *Oral drops*: 200, 400 mg/5 ml (50 ml) (fruit); *Chew tab*: 200 mg wafer (fruit)

E.E.S. Oral susp: 200, 400 mg/5 ml (100 ml) (fruit)

E.E.S. Granules Oral susp: 200 mg/5 ml (100, 200 ml) (cherry)

E.E.S. 400 Tablets Tab: 400 mg

gemifloxacin (C)(G) <18 years: not recommended; ≥18 years: 320 mg once daily x
 5-7 days
</p>

Factive Tab: 320\*mg

Comment: *gemifloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

▶ levofloxacin (C) <18 years: not recommended; ≥18 years: Uncomplicated: 500 mg daily x 7 days; Complicated: 750 mg daily x 7 days</p>

Levaquin Tab: 250, 500, 750 mg

Comment: *levofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

loracarbef (B) <12 years: 15 mg/kg/day in 2 divided doses x 7 days; see page 570 for dose by weight table; ≥12 years: 200 mg bid x 7 days</p>

Lorabid *Pulvule*: 200, 400 mg; *Oral susp*: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)

P ofloxacin (C)(G) <18 years: not recommended; ≥18 years: 400 mg bid x 10 days Floxin Tab: 200, 300, 400 mg **Comment**: *ofloxacin* is contraindicated <18 years-of-age, and during pregnancy and lactation. Risk of tendonitis or tendon rupture.

## XEROSIS

### MOISTURIZING AGENTS

Aquaphor Healing Ointment (OTC) Oint: 1.75, 3.5, 14 oz (alcohol)

Eucerin Daily Sun Defense (OTC) Lotn: 6 oz (fragrance-free)

Comment: Eucerin Daily Sun Defense is a moisturizer with SPF-15 sunscreen.

Eucerin Facial Lotion (OTC) Lotn: 4 oz

Eucerin Light Lotion (OTC) Lotn: 8 oz

Eucerin Lotion (OTC) Lotn: 8, 16 oz

Eucerin Original Creme (OTC) Crm: 2, 4, 16 oz (alcohol)

Eucerin Plus Creme (OTC) Crm: 4 oz

Eucerin Plus Lotion (OTC) Lotn: 6, 12 oz

Eucerin Protective Lotion (OTC) Lotn: 4 oz (alcohol)

Comment: Eucerin Protective is a moisturizer with SPF-25 sunscreen.

Lac-Hydrin Cream (OTC) Crm: 280, 385 g

Lac-Hydrin Lotion (OTC) Lotn: 225, 400 g

Lubriderm Dry Skin Scented (OTC) Lotn: 6, 10, 16, 32 oz

Lubriderm Dry Skin Unscented (OTC) Lotn: 3.3, 6, 10, 16 oz (fragrance-free)

Lubriderm Sensitive Skin Lotion (OTC) Lotn: 3.3, 6, 10, 16 oz (lanolin-free)

**Lubriderm Dry Skin (OTC)** *Lotn:* 2.5, 6, 10, 16 oz (scented); 1, 2.5, 6, 10, 16 oz

(fragrance-free)

**Lubriderm Bath & Shower Oil** (OTC) 1-2 capfuls in bath <u>or</u> rub onto wet skin as needed, then rinse

Oil: 8 oz

Moisturel apply as needed

Crm: 4, 16 oz; Lotn: 8, 12 oz; Clnsr: 8.75 oz

### Topical Oil

P fluocinolone acetamide 0.01% topical oil (C) <6 years: not recommended; ≥6 years: apply sparingly bid for up to 4 weeks</p>

Derma-Smoothe/FS Topical Oil apply sparingly tid

Topical oil: 0.01% (4 oz; peanut oil)

### **ZOLLINGER-ELLISON SYNDROME**

### PROTON PUMP INHIBITORS

**Comment**: If hepatic impairment, or if patient is Asian, consider reducing the PPI dose.

dexlansoprazole (B)(G) <18 years: not recommended; ≥18 years: 30-60 mg daily for up to 4 weeks
</p>

**Dexilant** *Cap*: 30, 60 mg ent-coat del-rel granules; may open and sprinkle on applesauce; do not crush or chew granules

Dexilant SoluTab Tab: 30 mg del-rel orally-disint

▶ esomeprazole (B)(OTC)(G) <1 year: not recommended; 1-11 years, <20 kg: 10 mg; >20 kg: 10-20 mg once daily; 12-17 years: 20-40 mg once daily; >17 years: 20-40 mg daily; max 8 weeks; take 1 hour before food; swallow whole or mix granules with food or juice and take immediately; do not crush or chew granules; max 8 weeks

Nexium Cap: 20, 40 mg ent-coat del-rel pellets

Nexium for Oral Suspension Oral susp: 10, 20, 40 mg ent-coat del-rel granules/pkt; mix in 2 tbsp water and drink immediately; 30 pkt/carton

esomeprazole/aspirin (D) <18 years: not recommended; ≥18 years: take one dose daily; max 8 weeks; take 1 hour before food
</p>

Yosprala

Tab: Yosprala 40/81 esom 40 mg/asp 81 mg del-rel Yosprala 40/325 esom 40 mg/asp 325 mg del-rel

► lansoprazole (B)(OTC)(G) <1 year: not recommended; 1-11 years, <30 kg: 15 mg once daily; >11 years: 15-30 mg daily for up to 8 weeks; may repeat course; take before eating

**Prevacid** *Cap*: 15, 30 mg ent-coat del-rel granules; swallow whole <u>or</u> mix granules with food <u>or</u> juice and take immediately; do not crush <u>or</u> chew granules; follow with water

Prevacid for Oral Suspension *Oral susp*: 15, 30 mg ent-coat del-rel granules/pkt; mix in 2 tbsp water and drink immediately; 30 pkt/carton (strawberry)

Prevacid SoluTab ODT: 15, 30 mg (strawberry; phenylalanine)

Prevacid 24HR Oral granules: 15 mg ent-coat del-rel granules; swallow whole or mix granules with food or juice and take immediately; do not crush or chew granules; follow with water

> omeprazole (C)(OTC)(G) <1 year: not recommended; 5-<10 kg: 5 mg daily; 10-<20 kg: 10 mg daily; ≥20 kg: 20-40 mg daily; take before eating; swallow whole or mix granules with applesauce and take immediately; do not crush or chew; follow with water</p>

Prilosec Cap: 10, 20, 40 mg ent-coat del-rel granules

Prilosec Tab: 20 mg del-rel (regular, wild berry)

pantoprazole (B) <12 years: not recommended; ≥12 years: initially 40 mg bid
 Protonix (G) Tab: 40 mg ent-coat del-rel
</p>

Protonix for Oral Suspension *Oral susp*: 40 mg ent-coat del-rel granules/pkt; mix in 1 tsp apple juice for 5 seconds or sprinkle on 1 tsp applesauce, and swallow immediately; do not mix in water or any other liquid or food; take approximately 30 minutes prior to a meal; 30 pkt/carton any other liquid or food; take approximately 30 minutes prior to a meal; 30 pkt/carton

rabeprazole (B)(OTC)(G) <12 years: not recommended; ≥12-18 years: 20 mg once daily; max 8 week; >18 years: initially 20 mg daily; then titrate; may take 10 mg daily in divided doses or 60 mg bid

AcipHex *Tab*: 20 mg ent-coat del-rel AcipHex Sprinkle *Cap*: 5, 10 mg del-rel

## **SECTION II**

### **APPENDICES**

### APPENDIX A: U.S. FDA PREGNANCY CATEGORIES

Comment: For drugs FDA-approved *after June 30, 2015*, the 5-letter categories are no longer used and there is no replacement (categorical nomenclature) at this time. Rather, information regarding special populations, including pregnant and breastfeeding females, is addressed in a structured narrative format. Prescribers should refer to the drug's FDA labeling (https://www.fda.gov/Drugs/default.htm) or the manufacturer's package insert for this information. Prescription drugs submitted for FDA approval after June 30, 2015 use the new format immediately, while labeling for prescription drugs approved on or after June 30, 2015 are phased in gradually. Although drugs approved prior to June 29, 2015 are not subject to the FDA's Pregnancy and Lactation Labeling Final Rule (PLLR), the *pregnancy letter category must be removed by June 29, 2018*. Labeling for over-the-counter (OTC) medicines will not change, as OTC drugs are not affected by the new FDA pregnancy labeling. For a more detailed explanation of the final rule and new narrative format, visit https://www.drugs.com/pregnancy-categories.html.

Category	Description
A	Controlled studies in women have failed to demonstrate risk to the fetus in the first trimester of pregnancy and there is no evidence of risk in later trimesters.
В	Animal reproduction studies have not demonstrated risk to the fetus, but there are no controlled studies in pregnant women, or animal studies have demonstrated an adverse effect, but controlled studies in pregnant women have not documented risk to the fetus in the first trimester of pregnancy and there is no evidence of risk in later trimesters.
С	Risk to the fetus cannot be ruled out. Animal reproduction studies have demonstrated adverse effects on the fetus (i.e., teratogenic <u>or</u> embryocidal effects <u>or</u> other) but there are no controlled studies in pregnant women <u>or</u> controlled studies in women and animals are not available.
D	There is positive evidence of human fetal risk, but benefits from use by pregnant women may be acceptable despite the potential risk (e.g., if the drug is needed in a life-threatening situation or for a serious disease for which safer drugs cannot be used or are ineffective.
X	Studies in animals <u>or</u> humans have demonstrated fetal abnormalities <u>or</u> there is evidence of fetal risk based on human experience, <u>or</u> both, and the risk of using the drug in pregnant women clearly outweighs any possible benefit. The drug is contraindicated in women who are pregnant <u>or</u> who may become pregnant.

(continued)

## APPENDIX B: U.S. SCHEDULE OF CONTROLLED SUBSTANCES

Schedule	Description
I	High potential for abuse and of no currently accepted medical use. Not obtainable by prescription, but may be legally procured for research, study, or instructional use (examples: heroin, LSD, marijuana, mescaline, peyote).
II	High abuse potential and high liability for severe psychological or physical dependence potential. Prescription required and cannot be refilled. Prescription must be written in ink or typed and signed. A verbal prescription may be allowed in an emergency by the dispensing pharmacist, but must be followed by a written prescription within 72 hours. Includes opium derivatives, other opioids, and short-acting barbiturates.
III	Potential for abuse is less than that for drugs in schedules I and II. Moderate to low physical dependence and high psychological dependence potential. Prescription required. May be refilled up to 5 times in 6 months. Prescription may be verbal (telephone) or written. Includes certain stimulants and depressants not included in the above schedules, and preparations containing limited quantities of certain opioids.
IV	Lower potential for abuse than Schedule III drugs. Prescription required. May be refilled up to 5 times in 6 months. Prescription may be verbal (telephone) or written.
V	Abuse potential less than that for Schedule IV drugs. Preparations contain limited quantities of certain narcotic drugs. Generally intended for antitussive and antidiarrheal purposes and may be distributed without a prescription provided that:  • Such distribution is made only by a pharmacist.  • Not more than 240 ml or not more than 48 solid dosage units of any substance containing opium, nor more than 120 ml or not more than 24 solid dosage units of any other controlled substance may be distributed at retail to the same purchaser in any given 48-hour period without a valid prescription order.  • The purchaser is at least 18 years-of-age.  • The pharmacist knows the purchaser or requests suitable identification.  • The pharmacist keeps an official written record of: name and address of purchaser, name and quantity of controlled substance purchased, date of sale, initials of dispensing pharmacist. This record is to be made available for inspection and copying by the U.S. officers authorized by the Attorney General.  • Other federal, state, or local laws do not require a prescription order. Under jurisdiction of the Federal Controlled Substances Act. Refillable up to 5 times within 6 months.



## APPENDIX C: JNC-8\* AND ASH\*\* HYPERTENSION EVALUATION AND TREATMENT RECOMMENDATIONS

### APPENDIX C.1: BLOOD PRESSURE CLASSIFICATION (≥18 YEARS)<sup>1</sup>

Classification	SBP mmHg		DBP mmHg
Normal	<120	and	<80
Prehypertension	120-139	or	80-89
Hypertension, Stage 1	140-159	<u>or</u>	90-99
Hypertension, Stage 2	≥160	or	≥100

<sup>&</sup>lt;sup>¶</sup>Adapted from PL Detail-Document. (2014, February). Treatment of hypertension: JNC 8 and more. *Pharmacist's Letter/Prescriber's Letter*. Retrieved from https://www.scribd.com/doc/290772273/JNC-8-guideline-summary

### APPENDIX C.2: BLOOD PRESSURE RECOMMENDATIONS (>18 YEARS)

Classification	SBP mmHg	DBP mmHg	
Optimal	<120	<80	
Normal	<130	<85	
High normal	130-139	85-89	

### APPENDIX C.2.A: BLOOD PRESSURE CLASSIFICATION (<18 YEARS)1

Age Group	Significant		Severe	
	SBP	DBP	SBP	DBP
Newborn <7 days	>96		>106	
Newborn 8-30 days	>104		>110	
Infant 30 days-2 years	>112	>74	>118	>82
Children 3-5 years	>116	>76	>124	>84
Children 6-9 years	>122	>78	>130	>86
Children 10-12 years	>126	>82	>134	>90
Adolescents 13-15 years	>136	>86	>144	>92
Adolescents 16-18 years	>142	>92	>150	>98

<sup>&</sup>lt;sup>¶</sup>Adapted from American Pharmacists Association. (2015). *Pediatric and neonatal dosage handbook: A universal resource for clinicians treating pediatric and neonatal patients* (22nd ed.). Hudson, Ohio: Lexicomp.

### APPENDIX C.3: IDENTIFIABLE CAUSES OF HYPERTENSION (JNC-8)

- Obstructive sleep apnea
- · Chronic kidney disease
- Primary aldosteronism
- · Renovascular disease
- Excess sodium ingestion
- Herbal supplements
- Coarctation of the aorta
- Pheochromocytoma
- Thyroid disease
- Parathyroid disease
- · Cushing's syndrome

- Prescription Drugs: oral contraceptives, sympathomimetics, venlafaxine, bupropion, clozapine, buspirone, bromocriptine, carbamazepine, metoclopramide
- Illicit, Over-the-Counter Drugs, and Herbal Products: excess alcohol consumption, alcohol withdrawal, anabolic steroids, cocaine, cocaine withdrawal, phenylpropanolamine analogs, ephedra alkaloids, ergot-containing herbal products, St. John's wart, nicotine withdrawal

### APPENDIX C.4: CVD RISK FACTORS (JNC-8)

- Hypertension
- Obesity (BMI ≥30 kg/m²)
- Dyslipidemia
- Diabetes mellitus
- · Cigarette smoking
- · Physical inactivity

- · Microalbuminuria, GFR <60 mL/min
- Age (men >55 yrs, women >65 yrs)
- Family history of premature CVD (men <55 yrs, women <65 yrs)</li>

### APPENDIX C.5: DIAGNOSTIC WORKUP OF HYPERTENSION (JNC-8)

- · Assess risk factors and comorbidities
- Reveal identifiable causes of hypertension
- · Assess for presence of target organ damage
- · History and physical examination
- Urinalysis, blood glucose, hematocrit, lipid panel, potassium, creatinine, calcium, (optional: urine albumin/Cr ratio), EKG

## APPENDIX C.6: BLOOD PRESSURE MEASUREMENT RECOMMENDATIONS (JNC-8)

- Blood pressure should be measured after the patient has emptied his or her bladder and has been seated for 5 minutes with back supported and legs resting on the ground (not crossed)
- Arm used for measurement should rest on a table, at heart level
- Use a sphygmomanometer/stethoscope or automated electronic device (preferred) with the correct size arm cuff
- Take two readings one to two minutes apart, and average the readings (preferred)
- Measure blood pressure in both arms at initial valuation; use the higher reading for measurements thereafter
- Confirm the diagnosis of HTN at a subsequent visit one to four weeks after the first
- If blood pressure is very high (e.g., systolic 180 mmHg or higher), or timely follow-up unrealistic, treatment can be started after just one set of measurements

## APPENDIX C.7: PATIENT-SPECIFIC FACTORS TO CONSIDER WHEN SELECTING DRUG THERAPY(IES) (JNC-8\* AND ASH\*\*)

### INC-8:

- Non-Black, including those with diabetes: thiazide, CCB, ACEI, or ARB
- African American, including those with diabetes: thiazide or CCB
- CKD; regimen should include an ACEI or ARB (including African Americans)
- Can initiate with two agents, especially if systolic >20 mmHg above goal or diastolic >10 mmHg above goal
- If goal not reached: stress adherence to medication and lifestyle, increase dose or add a second or third agent from one of the recommended classes
- Choose a drug outside of the classes recommended above only if these options have been exhausted. Consider specialist referral.

### ASH:

- Non-Black <60 years-of-age: First-line: ACEI or ARB; Second-line (add-on): CCB or thiazide; Third-line: CCB plus ACEI or ARB plus thiazide</li>
- Non-Black 60 years-of-age and older: First-line: CCB or thiazide preferred, ACEI, or ARB; Second-line (add-on): CCB, thiazide, ACEI, or ARB (do not use ACEI plus ARB); Third-line: CCB plus ACEI or ARB plus thiazide
- African American: First-line: CCB or thiazide; Second-line (add-on): ACEI or ARB. Third-line: CCB plus ACEI or ARB plus thiazide

### Comorbidities (ASH):

- Diabetes: First-line: ACEI or ARB (can start with CCB or thiazide in African Americans); Second-line: add CCB or thiazide (can add ACEI or ARB in African Americans); Third-line: CCB plus ACEI or ARB plus thiazide
- CKD: First-line: ARB or ACEI (ACEI for African Americans); Second-line (add-on): CCB or thiazide; Third-line: CCB plus ACEI or ARB plus thiazide
- CAD: First-line: BB plus ARB or ACEI; Second-line (add-on): CCB or thiazide;
   Third-line: BB plus ARB or ACEI plus CCB plus thiazide
- Stroke history: First-line: ACEI or ARB; Second-line: add CCB or thiazide; Third-line: CCB plus ACEI or ARB plus thiazide
- Heart failure: ACEI or ARB plus BB plus diuretic plus aldosteronism antagonist.
   Amlodipine can be added for additional BP control (Start with ACEI, BB, diuretic. Can add BB even before ACE-I optimized. Use diuretic to manage fluid.)
- In patients 60 years of age or older who do not have diabetes or chronic kidney disease, the goal blood pressure level is now <150/90 mmHg</li>
- In patients 18 to 59 years-of-age without major comorbidities, and in patients 60 years-of-age or older who have diabetes, chronic kidney disease, or both conditions, the new goal blood pressure level is <140/90 mmHg</li>

### APPENDIX C.8: BLOOD PRESSURE MANAGEMENT CHANGES FROM JNC VII To .inc-81

- First-line and later-line treatments should now be limited to 4 classes of medications: thiazide-type diuretics, calcium channel blockers (CCBs), ACEIs, and ARBs
- Second- and third-line alternatives included higher doses <u>or</u> combinations of ACEIs, ARBs, thiazide type diuretics, and CCBs
- Several medications are now designated as later-line alternatives, including the following:
- Beta-blockers
- · Alpha-blockers
- Alpha1/beta-blockers (e.g., carvedilol)
- Vasodilating beta-blockers (e.g., nebivolol)
- Central alpha2-adrenergic agonists (e.g., clonidine)
- Direct vasodilators (e.g., hydralazine)
- Loop diuretics (e.g., furosemide)
- Aldosterone antagonists (e.g., *spironolactone*)
- Peripherally acting adrenergic antagonists (e.g., reserpine)
- When initiating therapy, patients of African descent without chronic kidney disease should use CCBs and thiazides instead of ACEIs
- Use of ACEIs and ARBs is recommended in all patients with chronic kidney disease regardless of ethnic background, either as first-line therapy or in addition to firstline therapy
- ACEIs and ARBs should not be used in the same patient simultaneously
- CCBs and thiazide-type diuretics should be used instead of ACEIs and ARBs in patients over the age of 75 with impaired kidney function due to the risk of hyperkalemia, increased creatinine, and further renal impairment

Adapted from PL Detail-Document. (2014, February). Treatment of hypertension: JNC 8 and more. *Pharmacist's Letter/Prescriber's Letter*. Retrieved from https://www.scribd.com/doc/290772273/JNC-8-guideline-summary



## APPENDIX D: ATP-IV TARGET LIPID RECOMMENDATIONS<sup>1</sup>

### APPENDIX D.1: TARGET TC, TG, HDL-C, NON-HDL-C

Total cholesterol	<200 mg/dL
Triglyceride	<150 mg/dL
High-density lipoprotein (HDL)	>40 mg/dL (male) >50 mg/dL (female)
Non-high-density lipoprotein (Non-HDL-C)	<130 mg/dL; 30 mg/dL above the LDL-treatment target

<sup>&</sup>lt;sup>¶</sup>Adapted from the National Cholesterol Education Program Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel IV, 2012)

### APPENDIX D.2: TARGET LDL-C<sup>†</sup>

Risk Assessment <sup>††</sup>	LDL Target	Initiate TLC†††	Initiate Drug Therapy
0-1	<160 mg/dL	≥160 mg/dL	≥190 mg/dL (optional at 160-189 mg/dL)
2 <u>or</u> more plus 10-year risk <10%	<130 mg/dL	≥130 mg/dL	≥160 mg/dL
2 or more plus 10-year risk <20%	<130 mg/dL <100 mg/dL (optional)	≥130 mg/dL	≥130 mg/dL
CHD <u>or</u> CHD risk equivalents 10-year risk >20%	<100 mg/dL <70 mg/dL (optional)	≥100 mg/dL	≥100 mg/dL

<sup>&</sup>lt;sup>†</sup>Treatment decisions based on LDL cholesterol.

### APPENDIX D.3: NON-HDL-C1

Desirable	<130 mg/dL	Non-HDL-C is calculated as
Borderline high	139-159 mg/dL	total cholesterol minus HDL-C. The addition of non-HDL-C
High	160-189 mg/dL	to the Lipid Panel reflects the
Very high	≥190 mg/dL	recognition of this calculated value as a predictive factor in cardiovascular disease based on the National Cholesterol Education III studies. The reference ranges for non-HDL-C are based on National Cholesterol Education III guidelines: Non-HDL-C is thought to be a better predictor of CVD than LDL-C; treatment goal for non-HDL-C is usually 30 mg/dL above the LDL-C treatment target. For example, if the LDL-C treatment goal is <70 mg/dL, then Non-HDL-C treatment target would be <100 mg/dL.

<sup>&</sup>lt;sup>¶</sup>Adapted from the National Cholesterol Education Program Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel IV, 2012).

<sup>††</sup>Risk factors include age (men ≥45 years and women ≥55 years).

<sup>†††</sup>Therapeutic lifestyle changes (e.g., exercise, weight loss, low fat diet).



## APPENDIX E: EFFECTS OF SELECTED DRUGS ON INSULIN ACTIVITY

Hyper- and Hypoglycemic Drug Effects			
Drugs That May Cause Hyperglycemia Drugs That May Cause Hypoglycemia			
Calcium channel blockers	Alcohol		
Thiazide diuretics	Beta-blockers		
Corticosteroids	MAO inhibitors		
Nicotinic acid	Salicylates		
Oral contraceptives	NSAIDs		
phenytoin	warfarin		
Sympathomimetics diazoxide	phenylbutazone		



# APPENDIX F: GLYCOSYLATED HEMOGLOBIN (HgbA1c) AND AVERAGE BLOOD GLUCOSE EQUIVALENT

HbA1c and Average Blood Glucose Equivalent				
HbA1c (%)	GLU	HbA1c (%)	GLU	
4	60 mg/dL	14	360 mg/dL	
5	90 mg/dL	15	390 mg/dL	
6	120 mg/dL	16	420 mg/dL	
7	150 mg/dL	17	450 mg/dL	
8	180 mg/dL	18	480 mg/dL	
9	210 mg/dL	19	510 mg/dL	
10	240 mg/dL	20	540 mg/dL	
11	270 mg/dL	21	570 mg/dL	
12	300 mg/dL	22	600 mg/dL	
13	330 mg/dL	23	630 mg/dL	



# APPENDIX G: ROUTINE IMMUNIZATION RECOMMENDATIONS

- Prior to 1 year-of-age, administer IM vaccinations in the vastus lateralis muscle
- · After 1 year-of-age, administer vaccinations in the posterolateral upper arm
- Influenza vaccine should be administered annually for all ages ≥6 months of age
- Inactivated vaccines (e.g., pneumococcal, meningococcal, and inactivated influenza vaccines) are generally acceptable and live vaccines are generally avoided, in persons with immune deficiencies or immunocompromising conditions
- Additional information about routine vaccinations, unknown vaccination status, travel vaccinations, vaccinations in pregnancy, and other vaccines, is available at:
- · www.cdc.gov/vaccines/hcp/acip-recs/index.html
- · wwwnc.cdc.gov/travel/destinations/list
- DTaP (diphtheria-tetanus-toxoid, acellular pertussis); minimum age 6 wks
- DTaP should not be administered at or after the 7th birthday
- The 4th dose of DTaP vaccine can be administered as early as age 12 months, provided that the interval between doses 3 and 4 is at least 6 months
- DTaP and IPV should be administered at or before school entry
- HAV (hepatitis A vaccine) is recommended for all children at 1 year (12-23 months)
  of age
- HAV 2-dose series should be administered at least 6 months apart
- HBV (hepatitis B vaccine) is a 3-dose series initiated at birth; administer 2nd dose at 1-2 months; administer the 3rd dose at age 6 months (not before ≥24 weeks)
- HBV should be offered to all children who have not received the full series
- Infants born to HBsAg-positive mothers should be tested for HBsAG and antibody to HBsAg after completion of the HBV series (at age 9-18 months)
- Hib (Haemophilus influenza type b conjugate vaccine) minimum age 6 months
- Hib is not recommended if age >5 years
- HPV (human papillomavirus vaccine) vaccine should be administered anytime between 11 and 12 years-of-age
- HPV is a 3-series vaccine administered at months 0, 1, 6; females may receive HPV/4 or HPV/2; males should receive HPV/2
- HPV if <u>not</u> previously received at 11 <u>or</u> 12 years-of-age, may be initiated at anytime between 13 and 26 years-of-age
- IIV (inactivated influenza vaccine) can be administered >6 months (use ageappropriate formulation), pregnant women, and persons with hives-only allergy to eggs
- IHD (influenza high dose) (Fluzone High Dose) may be recommended to persons
   ≥65 years of age
- · IPV (inactivated poliovirus vaccine) minimum age 4 weeks
- An all-IPV schedule is recommended to eliminate the risk of vaccine-associated

- paralytic polio (VAPP) associated with OPV (oral poliovirus vaccine)
- LAIV (live attenuated influenza vaccine) may be administered intranasally (FluMist)
- Men (meningococcal vaccine) should be administered to all children at the 11-12
  year old visit as well as to unvaccinated adolescents 15 years-of-age (usually at high
  school entry)
- Men should be administered to all college freshmen living in dormitories
- Use MPSV4 for children aged 2-10 years and MCV4 for older children, although MPSV4 is an acceptable alternative for prophylaxis in men
- MMR (mumps-measles-rubella) should be administered at age 12 months in high-risk areas; if indicated, tuberculin testing can be done at the same visit
- MMR should be administered at age 11-12 years unless 2 doses were given after the first birthday; the interval between doses should be at least 4 weeks
- MMR adults born <1957 are generally considered immune to measles and mumps; all adults born ≥1957 should have documentation of at least 1 dose of MMR vaccine unless there is a medical contraindication or laboratory evidence of immunity to each of the 3 disease components; documentation of providerdiagnosed diseases not acceptable evidence of immunity to any of the 3 disease components
- PCV-13 (pneumococcal vaccine) does <u>not</u> replace 23-valent pneumococcal polysaccharide in children age ≥24 months
- PCV-13 when PCV-13 and PCV-23 are indicated, administer PCV-13 first; do not administer PCV-13 and PCV-23 in the same visit
- PCV-13 adults ≥65 years-of-age, who have <u>not</u> received PCV-13 <u>or</u> PCV-23, should receive PCV-13 followed by PCV-23 6-12 months later
- PCV-23 (pneumococcal vaccine 23 trivalent) minimum age 6 weeks
- PCV-23 adults ≥65 years of age, who have received PCV-23, but not received PCV-13, should receive. PCV-13 at least I year later; adults ≥65 years of age, who have not received PCV-23, should receive
- PCV-13 followed by PCV-23 6-12 months later
- RIV (recombinant influenza vaccine; FluBlok) may be administered to any adult >18 years-of-age, including pregnant women
- RIV does <u>not</u> contain any egg protein; can be administered to anyone with egg allergy at any severity
- Older infants and children previously vaccinated with PCV should receive 3 doses (if age 7-11 months), 2 doses (if age 12-23 months), or 1 dose (if age >24 months)
- Rot (rotavirus vaccine) is a live attenuated oral vaccine for infants aged >6 weeks or
   <32 weeks only; administer the 1st dose at 6-12 weeks-of-age; administer 2nd and</li>
   3rd doses at 4-10-week intervals for a total of 3 doses
- Rot If an incomplete dose is administered, <u>do not</u> administer a replacement dose, but continue with the remaining doses in the recommended series
- Td (tetanus-diphtheria vaccine) should be repeated every 10 years throughout life (or if at-risk injury ≥5 years after previous dose)

- Td should <u>not</u> be administered until minimum age ≥7 years
- TdaP (tetanus-diphtheria-acellular pertussis) administer 1 dose to pregnant women during each pregnancy, preferably during 27-36 weeks gestation, regardless of interval since prior Td or TdaP
- TdaP persons ≥11 years-of-age who have <u>not</u> received TdaP vaccine <u>or</u> for whom
  vaccine status is unknown, should receive 1 dose of TdaP followed by a Td booster
  every 10 years
- Var should be administered to children at age 11-12 years who have <u>not</u> had chickenpox <u>or</u> who report having had chickenpox but do <u>not</u> have laboratory documentation of immunity
- Var If not received between age 11 and 12 years, administer 2 doses at least 4 weeks
  apart anytime after 12 years-of-age or a 2nd dose if previously only received 1 dose
- VarZ (herpes zoster vaccine) should be administered in a single dose once at ≥60
  years-of-age, whether or not the person reports a prior episode of active herpes
  zoster infection
- VarZ is contraindicated in pregnancy and immune deficiency
- DTaP and IPV can be initiated as early as 4 weeks in areas of high endemicity or outbreak

#### APPENDIX G.1: CONTRAINDICATIONS TO VACCINES

All vaccines	Previous anaphylactic reaction to the vaccine Moderate <u>or</u> severe illness with <u>or</u> without fever
TdaP/DTaP, Td	Encephalopathy within 7 days of administration of previous dose
Hib	Previous anaphylactic reaction to the vaccine Moderate <u>or</u> severe illness with <u>or</u> without fever
HBV	Anaphylactic reaction to baker's yeast
HAV	Previous anaphylactic reaction to the vaccine Moderate <u>or</u> severe illness with <u>or</u> without fever
Influenza	Allergy to eggs (except FluBlok, which does not contain any egg protein)
IPV	Anaphylactic reaction to neomycin or streptomycin
Pneumococcal	Hypersensitivity to diphtheria toxoid
MMR	Pregnancy, immunodeficiency, anaphylactic reaction to eggs or neomycin
Meningococcal	Encephalopathy within 7 days of administration of previous dose
Rotavirus	<6 months or >32 months

<sup>&</sup>lt;sup>¶</sup>Adapted from DHHS CDC 2015.

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## (continued)

HPV	Pregnancy; pregnancy testing is <u>not</u> required; however, if administered, defer the remaining dose(s) until completion <u>or</u> termination of pregnancy
Varicella	Pregnancy
Herpes zoster	Pregnancy

<sup>&</sup>lt;sup>1</sup>Adapted from DHHS CDC 2015.

### APPENDIX G.2: ROUTE OF ADMINISTRATION AND DOSE OF VACCINES

Vaccine	Route	Dose
Single Vaccines		
Diphtheria-Tetanus-Pertussis (DTaP, Dtap, DT)	IM	0.5 ml
Haemophilus influenza type b (Hib)	IM	0.5 ml
Hepatitis A vaccine (HAV)	IM	0.5 ml: age <18 yrs 1.0 ml: age ≥19 yrs
Hepatitis B vaccine (HBV)	IM	0.5 ml: age <18 yrs 1.0 ml: age ≥19 yrs
Human Papillomavirus (HPV)	IM	0.5 ml
Influenza (Fluzone Intradermal)	ID	0.5 ml
Influenza, inactivated (IIV), recombinant (RIV)	IM	0.25 ml: age 6-35 months 0.5 ml: age ≥3 yrs
Influenza, live attenuated (LAIV)	NS	0.2 ml; 0.1 ml in each nostril
Meningococcal conjugate	IM	0.5 ml
Vaccine	Route	Dose
Meningococcal polysaccharide (MPSV)	SC	0.5 ml
Meningococcal serogroup B (Men B)	IM	0.5 ml
Mumps-Measles-Rubella (MMR)	SC	0.5 ml
Pneumococcal conjugate (PCV)	IM	0.5 ml
Pneumococcal polysaccharide (PPSV)	IM/SC	0.5 ml
Polio, Inactivated (IPV)	IM/SC	0.5 ml

Rotavirus ( <b>Rotarix</b> )	PO	1 ml
Rotavirus (Rotateq)	PO	2 ml
Tetanus (Td)	IM	0.5 ml
Varicella	SC	0.5 ml
Herpes Zoster	SC	0.65 ml: age ≥60 yrs
Combination Vaccines		
MMR-Var (ProQuad)	SC	0.5 ml: age ≤12 yrs
HBV-HAV (Twinrix)	IM	1 ml: >18 yrs
DTaP-HBV-IPV (Pediarix)	IM	0.5 ml
DTaP-IPV-Hib (Pentacel)	IM	0.5 ml
DTaP-IPV (Kinrix, Quadracel)	IM	0.5 ml
Hib-HBV (Comvax)	IM	0.5 ml
Hib-MenCY (MenHibrix)	IM	0.5 ml

<sup>&</sup>lt;sup>¶</sup>Adapted from DHHS CDC 2015.

## APPENDIX G.3: ADVERSE REACTIONS TO VACCINES<sup>1</sup>

Vaccine	Signs and Symptoms	Treatment
Inactivated antigens: DTP, Dtap, DTaP, Td, IPV, influenza inactivated (IIV) recombinant (RIV) Live attenuated viruses: MMR, Meningococcal, rotavirus, varicella, herpes zoster	Local tenderness Erythema Swelling Low-grade fever Drowsiness Fretfulness Decreased appetite Prolonged crying Unusual cry	acetaminophen or ibuprofen for age and/or weight; aspirin and aspirin- containing products are contraindicated

<sup>&</sup>lt;sup>¶</sup>Adapted from DHHS CDC 2015.

### APPENDIX G.4: MINIMUM INTERVALS BETWEEN VACCINE DOSES1

Type	#1 to #2	#2 to #3	#3 to #4	#4 to #5
HBV	4 weeks	5 months		
HAV	6 months			

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Type	#1 to #2	#2 to #3	#3 to #4	#4 to #5
DTaP	4 weeks	4 weeks	6 months	6 months
IPV	4 weeks	4 weeks	4 weeks	
MMR	4 weeks			
Var	4 weeks			
Rotavirus	4 weeks	4 weeks; do <u>not</u> administer >32 weeks of age		
PCV-13	4 weeks (if #1 at age <12 months and current age <24 months); 8 weeks (as last dose if #1 at age>12 months or current age 24-59 months); No more doses needed if healthy and #1 at age ≥24 months	4 weeks if age <12 months; 8 weeks (as last dose if age ≥12 months); No more doses needed if healthy and previous dose at age ≥24 months	8 weeks (as last dose; only necessary for age 12 months to 5 years who received 3 doses before age 12 months)	
Hib	4 weeks (if #1 at age <12 months); 8 weeks (as last dose if #1 at age 12-14 months); No more doses needed if healthy and #1 at age ≥15 months	4 weeks if age 12 months; 8 weeks (as last dose if age ≥12 months); No more doses needed if previous dose at age ≥15 months	8 weeks (as last dose; only necessary for age 12 months to 2 years who received 3 doses before age 12 months)	
HPV	4 weeks	20 weeks (24 weeks after #1		

<sup>&</sup>lt;sup>1</sup>Adapted from DHHS CDC 2015.

APPENDIX G.5: RECOMMENDED CHILDHOOD IMMUNIZATION SCHEDULE<sup>1</sup>

Туре	Birth	1 month	2 months	4 months	6 months	6-18 months	12-15 months	15-18 months	4-6 years	11-12 years
HBV	•	•			•					
DTaP			•	•	•		•		•	
IPV			•	•		•			•	
Hib			•	•	•		•			
Rotavirus			•	•	•					
MMR							•		•	
TdaP										•
Varicella							•		•	
PVC-13			•	•	•		•			
HAV							•	•		
Meningitis										•
HPV•										•••

<sup>&</sup>lt;sup>¶</sup>Adapted from DHHS CDC 2015.

<sup>•</sup>Shaded box = immunization due.

<sup>•••</sup>HPV 3-dose series, months 0, 1, 6.

## APPENDIX G.6: RECOMMENDED CHILDHOOD IMMUNIZATION CATCH-UP SCHEDULE<sup>11</sup>

Vaccine	Minimum Interval Between Doses				
	#1 to #2	#2 to #3	#3 to #4	#4 to #5	
HBV	4 weeks	8 weeks (16 weeks after #1)			
DTaP	4 weeks	4 weeks	6 months	6 months	
IPV	4 weeks	4 weeks	4 weeks		
MMR	4 weeks				
Var	4 weeks				
Rotavirus	4 weeks	4 weeks; do <u>not</u> administer >32 weeks of age			
PCV	2 months	2 months	2 months	6-15 months	
HPV	4 weeks	20 weeks (24 weeks after #1			

 $<sup>^{\</sup>P}\!Adapted$  from DHHS CDC 2015.

### APPENDIX G.7: RECOMMENDED ADULT IMMUNIZATION SCHEDULE®

Туре	19-21 yrs	22-26 yrs	27-49 yrs	50-59 yrs	60-65 yrs	≥65 yrs
Influenza	1 dose ann	ually				
HBV	3 dose seri	es: months	0, 1, 6			
Td/TdaP	Substitute 10 years	Substitute Tdap for Td one time; then continue Td once every 10 years				
MMR*	Born >195	Born >1957: 2 doses				
Varicella*	Without e	Without evidence of immunity: 2 doses, 4 weeks apart				
Herpes zoster*		1 time dose				
PVC-13/ PVC-23	1 time dose					
HAV	Single antigen, 2 doses: months 0, 6-12 (Havrix); 0, 6-18 (Vaqta)					
Meningitis	1 <u>or</u> more	doses				

Туре	19-21 yrs	22-26 yrs	27-49 yrs	50-59 yrs	60-65 yrs	≥65 yrs
HPV (female)*β	3 doses; months 0, 1, 6					
HPV (male) <sup>β</sup>	3 doses; m	onths 0, 1, 6	;			

Adapted from DHHS CDC 2015.

βOnly if <u>not</u> previously vaccinated between 11-12 years-of-age.



# APPENDIX H: CONTRACEPTIVES: CONTRAINDICATIONS AND RECOMMENDATIONS

- All contraceptives are pregnancy category X
- No non-barrier contraceptives protect against STDs

#### • Absolute Contraindications:

- HTN >35 years-of-age
- DM >35 years-of-age
- LDL-C >160 or TG >250
- Known <u>or</u> suspected pregnancy
- Known or suspected carcinoma of the breast
- Known or suspected carcinoma of the endometrium
- Known or suspected estrogen-dependent neoplasia
- · Undiagnosed abnormal genital bleeding
- Cerebral vascular or coronary artery disease
- Cholestatic jaundice of pregnancy or jaundice with prior use
- Hepatic adenoma or carcinoma or benign liver tumor
- Active or past history of thrombophlebitis or thromboembolic disorder

#### Relative Contraindications:

- Lactation
- Asthma
- · Ulcerative colitis
- Migraine or vascular headache
- Cardiac or renal dysfunction
- Gestational diabetes, prediabetes, diabetes mellitus
- Diastolic BP 90 mmHg or greater or hypertension by any other criteria
- Psychic depression
- · Varicose veins
- Smoker >35 years-of-age
- Sickle-cell or sickle-hemoglobin C disease
- Cholestatic jaundice during pregnancy, active gallbladder disease
- Hepatitis or mononucleosis during the preceding year

<sup>\*</sup>Contraindicated in pregnancy.

- First-order family history of fatal <u>or</u> non-fatal rheumatic CVD <u>or</u> diabetes prior to age 50 years
- Drug(s) with known interaction(s)
- Elective surgery or immobilization within 4 weeks
- Age >50 years

#### Recommendations:

- Start the first pill on the first Sunday after menses begins. Thereafter, each new pill pack will be started on a Sunday.
- Take each daily pill in the same 3-hour window (e.g., 9A-12N, 12N-3P; a 4-hour window prior to bedtime is not recommended).
- If 1 pill is missed, take it as soon as possible and the next pill at the regular time.
- If 2 pills are missed, take both pills as soon as possible and then two pills the following day. A barrier method should be used for the remainder of the pill pack.
- If 3 pills are missed before 10th cycle day, resume taking OCs on a regular schedule and take precautions.
- If 3 pills are missed after the 10th cycle day, discard the current pill pack and begin a new one 7 days after the last pill was taken.
- If very low-dose OCs are used or if combination OCs are begun after the 5th day of the menstrual cycle, an additional method of birth control should be used for the first 7 days of OC use.
- If nausea occurs as a side effect, select an OC with *lower estrogen* content.
- If breakthrough bleeding occurs during the first half of the cycle, select an OC with higher progesterone content.
- Symptoms of a serious nature include loss of vision, diplopia, unilateral numbness, weakness, or tingling, severe chest pain, severe pain in left arm or neck, severe leg pain, slurring of speech, and abdominal tenderness or mass.

#### APPENDIX H.1: 28-DAY ORAL CONTRACEPTIVES

Comment: Beyaz, Loryna, Syeda, Safyral, Yasmin, and Yaz are contraindicated with renal and adrenal insufficiency. Monitor  $k^+$  level during the first cycle if the patient is at risk for hyperkalemia for any reason. If the patient is taking drugs that increase potassium (e.g., ACEIs, ARBS, NSAIDs,  $K^+$  sparing diuretics), the patient is at risk for hyperkalemia.

Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
Alesse-21, Alesse-28 (X)(G) ethinyl estradiol/levonorgestrel	20	0.1
Altavera (X) ethinyl estradiol/levonorgestrel	30	0.15
Apri (X)(G) ethinyl estradiol/desogestrel	30	0.15

Aranelle (X)(G) ethinyl estradiol/norethindrone  Aviane (X)(G) ethinyl estradiol/levonorgestrel  Balziva (X)(G) ethinyl estradiol/norethindrone  Beyaz (X)(G) ethinyl estradiol/drospirenone plus levomefolate calcium 0.451 mcg (28 tabs)  Blisovi 24 Fe (X)(G) ethinyl estradiol/norethindrone  Brevicon-21, Brevicon-28 (X)(G) ethinyl estradiol/norethindrone  Camrese (X) ethinyl estradiol/norethindrone  Camrese (X) ethinyl estradiol/levonorgestrel  Camrese Lo (X) ethinyl estradiol/levonorgestrel  Cesia (X)(G) ethinyl estradiol/desogestrel  Cryselle (X)(G) ethinyl estradiol/desogestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Demulen 1/35-21, Demulen 1/35-28 (X)(G) ethinyl estradiol/ethynodiol diacetate  Demulen 1/50-21, Demulen 1/50-28 (X)(G) ethinyl estradiol/desogestrel diacetate	Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
Aviane (X)(G)	` ' ' '	35	0.5
Aviane (X)(G)	ethinyl estradiol/norethindrone		
ethinyl estradiol/levonorgestrel  Balziva (X)(G) ethinyl estradiol/norethindrone  Beyaz (X)(G) ethinyl estradiol/drospirenone plus levomefolate calcium 0.451 mcg (28 tabs)  Blisovi 24 Fe (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg (4 tabs)  Brevicon-21, Brevicon-28 (X)(G) ethinyl estradiol/norethindrone Camrese (X) ethinyl estradiol/levonorgestrel 10  Camrese Lo (X) ethinyl estradiol/levonorgestrel 10  Cesia (X)(G) ethinyl estradiol/desogestrel 25 0.125 0.15  Cryselle (X)(G) ethinyl estradiol/desogestrel 25 0.15  Cryselle (X)(G) ethinyl estradiol/desogestrel 25 0.125 0.15  Demulen 1/35-21, Demulen 1/35-28 (X) (G) ethinyl estradiol/ethynodiol diacetate  Demulen 1/50-21, Demulen 1/50-28 (X)(G) ethinyl estradiol/ethynodiol diacetate  Desogen (X)(G) 90 0.4			0.5
Balziva (X)(G)	, , , ,	20	0.1
ethinyl estradiol/norethindrone  Beyaz (X)(G) ethinyl estradiol/drospirenone plus levomefolate calcium 0.451 mcg (28 tabs)  Blisovi 24 Fe (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg (4 tabs)  Brevicon-21, Brevicon-28 (X)(G) ethinyl estradiol/norethindrone  Camrese (X) ethinyl estradiol/levonorgestrel  Camrese Lo (X) ethinyl estradiol/levonorgestrel  Cesia (X)(G) ethinyl estradiol/desogestrel  Cesia (X)(G) ethinyl estradiol/desogestrel  Cryselle (X)(G) ethinyl estradiol/norgestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Cyclessa (X)(G) ethinyl estradiol/desogestrel  Demulen 1/35-21, Demulen 1/35-28 (X) (G) ethinyl estradiol/ethynodiol diacetate  Demulen 1/50-21, Demulen 1/50-28 (X)(G) ethinyl estradiol/ethynodiol diacetate  Desogen (X)(G)  30 0.15	ethinyl estradiol/levonorgestrel		
Beyaz (X)(G)   ethinyl estradiol/drospirenone   plus levomefolate calcium 0.451 mcg (28 tabs)   20	` /` /	35	0.4
ethinyl estradiol/drospirenone         plus levomefolate calcium 0.451 mcg (28 tabs)           Blisovi 24 Fe (X)(G)         20         1           ethinyl estradiol/norethindrone         20         1           plus ferrous fumarate 75 mg (4 tabs)         35         0.5           Brevicon-21, Brevicon-28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         10         0.15           Camrese (X)         30         0.15           ethinyl estradiol/levonorgestrel         10         0.1           Cesia (X)(G)         25         0.1           ethinyl estradiol/desogestrel         25         0.15           Cryselle (X)(G)         25         0.15           Cryselle (X)(G)         25         0.15           Cryselle (X)(G)         25         0.15           Cpclessa (X)(G)         25         0.125           ethinyl estradiol/desogestrel         25         0.125           Demulen 1/35-21, Demulen 1/35-28 (X)         35         1           (G)         ethinyl estradiol/ethynodiol diacetate         50         1           Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         50         1	ethinyl estradiol/norethindrone		
Plus levomefolate calcium 0.451 mcg (28 tabs)		20	3
Blisovi 24 Fe (X)(G)			
Blisovi 24 Fe (X)(G)	-		
ethinyl estradiol/norethindrone         plus ferrous fumarate 75 mg (4 tabs)           Brevicon-21, Brevicon-28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         30         0.15           Camrese (X)         20         0.1           ethinyl estradiol/levonorgestrel         10         0.1           Cesia (X)(G)         25         0.1           ethinyl estradiol/desogestrel         25         0.125           Cryselle (X)(G)         30         0.3           ethinyl estradiol/norgestrel         25         0.1           Cyclessa (X)(G)         25         0.1           ethinyl estradiol/desogestrel         25         0.125           0.15         25         0.15           Demulen 1/35-21, Demulen 1/35-28 (X)         35         1           (G)         ethinyl estradiol/ethynodiol diacetate         50         1           Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         50         0.15	(28 tabs)		
Plus ferrous fumarate 75 mg (4 tabs)		20	1
Brevicon-21, Brevicon-28 (X)(G)			
ethinyl estradiol/norethindrone         30         0.15           Camrese (X)         10         0.15           chinyl estradiol/levonorgestrel         10         0.1           Camrese Lo (X)         20         0.1           ethinyl estradiol/levonorgestrel         10         0.1           Cesia (X)(G)         25         0.125           ethinyl estradiol/desogestrel         25         0.15           Cryselle (X)(G)         25         0.1           ethinyl estradiol/desogestrel         25         0.125           25         0.125         0.15           Demulen 1/35-21, Demulen 1/35-28 (X)         35         1           (G)         ethinyl estradiol/ethynodiol diacetate         50         1           Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         0.15	plus ferrous fumarate 75 mg (4 tabs)		
Camrese (X)		35	0.5
ethinyl estradiol/levonorgestrel         10           Camrese Lo (X)         20         0.1           ethinyl estradiol/levonorgestrel         10         0.1           Cesia (X)(G)         25         0.1           ethinyl estradiol/desogestrel         25         0.125           Cryselle (X)(G)         30         0.3           ethinyl estradiol/norgestrel         25         0.1           Cyclessa (X)(G)         25         0.125           ethinyl estradiol/desogestrel         25         0.125           0.15         25         0.15           Demulen 1/35-21, Demulen 1/35-28 (X)         35         1           (G)         ethinyl estradiol/ethynodiol diacetate         50         1           Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         0.15	ethinyl estradiol/norethindrone		
Camrese Lo (X)	` '	30	0.15
ethinyl estradiol/levonorgestrel         10           Cesia (X)(G)         25         0.1           ethinyl estradiol/desogestrel         25         0.125           Cryselle (X)(G)         30         0.3           ethinyl estradiol/norgestrel         25         0.1           Cyclessa (X)(G)         25         0.125           ethinyl estradiol/desogestrel         25         0.125           Demulen 1/35-21, Demulen 1/35-28 (X)         35         1           (G)         ethinyl estradiol/ethynodiol diacetate         50         1           Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         50         0.15	ethinyl estradiol/levonorgestrel	10	
Cesia (X)(G)         25         0.1           ethinyl estradiol/desogestrel         25         0.125           25         0.15         0.15           Cryselle (X)(G)         30         0.3           ethinyl estradiol/norgestrel         25         0.1           Cyclessa (X)(G)         25         0.125           ethinyl estradiol/desogestrel         25         0.15           Demulen 1/35-21, Demulen 1/35-28 (X)         35         1           (G)         ethinyl estradiol/ethynodiol diacetate         50         1           Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         50         0.15	Camrese Lo (X)	20	0.1
ethinyl estradiol/desogestrel       25       0.125         25       0.15         Cryselle (X)(G)       30       0.3         ethinyl estradiol/norgestrel       25       0.1         Cyclessa (X)(G)       25       0.125         ethinyl estradiol/desogestrel       25       0.15         Demulen 1/35-21, Demulen 1/35-28 (X)       35       1         (G)       ethinyl estradiol/ethynodiol diacetate       50       1         Demulen 1/50-21, Demulen 1/50-28 (X)(G)       50       1         ethinyl estradiol/ethynodiol diacetate       50       0.15         Desogen (X)(G)       30       0.15	ethinyl estradiol/levonorgestrel	10	
25   0.15	Cesia (X)(G)	25	0.1
Cryselle (X)(G)       30       0.3         ethinyl estradiol/norgestrel       25       0.1         Cyclessa (X)(G)       25       0.125         ethinyl estradiol/desogestrel       25       0.15         Demulen 1/35-21, Demulen 1/35-28 (X)       35       1         (G)       ethinyl estradiol/ethynodiol diacetate       50       1         Demulen 1/50-21, Demulen 1/50-28 (X)(G)       50       1         ethinyl estradiol/ethynodiol diacetate       30       0.15	ethinyl estradiol/desogestrel	25	0.125
ethinyl estradiol/norgestrel         25         0.1           Cyclessa (X)(G)         25         0.125           ethinyl estradiol/desogestrel         25         0.125           25         0.15           Demulen 1/35-21, Demulen 1/35-28 (X)         35         1           (G)         ethinyl estradiol/ethynodiol diacetate         50         1           Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         30         0.15		25	0.15
Cyclessa (X)(G)       25       0.1         ethinyl estradiol/desogestrel       25       0.125         25       0.15         Demulen 1/35-21, Demulen 1/35-28 (X)       35       1         (G)       ethinyl estradiol/ethynodiol diacetate       50       1         Demulen 1/50-21, Demulen 1/50-28 (X)(G)       50       1         ethinyl estradiol/ethynodiol diacetate       30       0.15	Cryselle (X)(G)	30	0.3
ethinyl estradiol/desogestrel     25     0.125       25     0.15       Demulen 1/35-21, Demulen 1/35-28 (X)     35     1       (G)     ethinyl estradiol/ethynodiol diacetate     50     1       Demulen 1/50-21, Demulen 1/50-28 (X)(G)     50     1       ethinyl estradiol/ethynodiol diacetate     30     0.15	ethinyl estradiol/norgestrel		
25   0.15	Cyclessa (X)(G)	25	0.1
Demulen 1/35-21, Demulen 1/35-28 (X)   35	ethinyl estradiol/desogestrel	25	0.125
(G) ethinyl estradiol/ethynodiol diacetate  Demulen 1/50-21, Demulen 1/50-28 (X)(G) ethinyl estradiol/ethynodiol diacetate  Desogen (X)(G) 30 0.15		25	0.15
(G) ethinyl estradiol/ethynodiol diacetate  Demulen 1/50-21, Demulen 1/50-28 (X)(G) ethinyl estradiol/ethynodiol diacetate  Desogen (X)(G) 30 0.15	Demulen 1/35-21, Demulen 1/35-28 (X)	35	1
Demulen 1/50-21, Demulen 1/50-28 (X)(G)         50         1           ethinyl estradiol/ethynodiol diacetate         30         0.15			
ethinyl estradiol/ethynodiol diacetate  Desogen (X)(G) 30 0.15	ethinyl estradiol/ethynodiol diacetate		
Desogen (X)(G) 30 0.15	Demulen 1/50-21, Demulen 1/50-28 (X)(G)	50	1
	ethinyl estradiol/ethynodiol diacetate		
	Desogen (X)(G)	30	0.15

Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
Enpresse (X)(G) ethinyl estradiol/levonorgestrel	30 40 30	0.05 0.075 0.125
Estrostep Fe (X) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	20 30 35	1 1 1
Femcon Fe (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	35	0.4
Generess Fe Chew tab (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	25	0.8
Genora (X)(G) ethinyl estradiol/norethindrone	35 35 35	0.5 1 0.5
Gianvi (X)(G) ethinyl estradiol/drospirenone	20	3
Gildess 1.5/30 (X)(G) ethinyl estradiol/norethindrone	30	1.5
Introvale (X) ethinyl estradiol/levonorgestrel	30	0.15
Jenest-28 (X) ethinyl estradiol/norethindrone	35 35	0.5 1
Jolessa (X)(G) ethinyl estradiol/levonorgestrel	30	0.15
Junel 1/20 (X)(G) ethinyl estradiol/norethindrone	20	1
Junel 1.5/30 (X)(G) ethinyl estradiol/norethindrone	30	1.5
Junel Fe 1/20 (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	20	1
Junel Fe 1.5/30 (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	30	1.5

Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
Kaitlib Fe Chew Tab (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	25	0.8
Kariva (X)(G) ethinyl estradiol/desogestrel	20 10	0.15 0.15
Kelnor 1/35 (X)(G) ethinyl estradiol/ethynodiol diacetate	35	1
Leena (X) ethinyl estradiol/norethindrone	35 35 35	0.5 1 0.5
Lessina 28 (X)(G) ethinyl estradiol/levonorgestrel	20	0.1
Levlen 21, Levlen 28 (X)(G) ethinyl estradiol/levonorgestrel	30	0.15
Levlite 28 (X)(G) ethinyl estradiol/levonorgestrel	20	0.1
Levora-21, Levora-28 (X)(G) ethinyl estradiol/levonorgestrel	30	0.15
Loestrin 21 1/20 (X)(G) ethinyl estradiol/norethindrone	20	1
Loestrin 21 1.5/30 (X)(G) ethinyl estradiol/norethindrone	30	1.5
Loestrin Fe 1/20 (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	20	1
Loestrin Fe 1.5/30 (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg (4 tabs)	30	1.5
Loestrin 24 Fe (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg (4 tabs)	20	1
Lo Loestrin Fe (X) ethinyl estradiol/norethindrone <u>plus</u> ferrous fumarate 75 mg (2 tabs)	10	1

Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
Lomedia 24 Fe (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	20	1
Lo/Ovral-21, Lo/Ovral-28 (X)(G) ethinyl estradiol/norgestrel	30	0.3
Loryna (X) ethinyl estradiol/drospirenone	20	3
Low-Ogestrel-21, Low-Ogestrel-28 (X)(G) ethinyl estradiol/norgestrel	30	0.3
Lutera (X)(G) ethinyl estradiol/levonorgestrel	20	0.1
Lybrel (X) ethinyl estradiol/levonorgestrel	20	0.09
Mibelas 24 FE (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	20	1
Microgestin 1/20 (X)(G) ethinyl estradiol/norethindrone	20	1
Microgestin Fe 1/20 (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	20	1
Microgestin 1.5/30 (X)(G) ethinyl estradiol/norethindrone	30	1.5
Microgestin Fe 1.5/30 (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	30	1.5
Minastrin 24 FE (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg	20	1
Mircette (X)(G) ethinyl estradiol/desogestrel diacetate	20 10	0.15
Modicon 0.5/35-28 (X)(G) ethinyl estradiol/norethindrone	35	0.5

Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
MonoNessa (X)(G) ethinyl estradiol/norgestimate	35	0.25
Natazia (X)(G)	30	_
estradiol valerate/dienogest	20	2
	20	3
Necon 0.5/35-21, Necon 0.5/35-28 (X)(G) ethinyl estradiol/norethindrone	35	0.5
Necon 1/35-21, Necon 1/35-28 (X)(G) ethinyl estradiol/norethindrone	35	0.5
Necon 10/11-21, Necon 10/11-28 (X)(G)	35	0.5
ethinyl estradiol/norethindrone	35	1
Necon 1/50-21, Necon 1/50-28 (X)(G) mestranol/norethindrone	50	1
Nelova 0.5/35-21, Nelova 0.5/35-28 (X)(G) ethinyl estradiol/norethindrone	35	0.5
Nelova 1/35-21, Nelova 1/35-28 (X)(G) ethinyl estradiol/norethindrone	35	1
Nelova 10/11-21, Nelova 10/11-28 (X)(G)	35	0.5
ethinyl estradiol/norethindrone	35	1
Nelova 1/50-21, Nelova 1/50-28 (X)(G) mestranol/norethindrone	50	1
Neocon 7/7/7 (X)(G)	35	0.5
ethinyl estradiol/norethindrone	35	0.75
	35	1
Nordette-21, Nordette-28 (X)(G) ethinyl estradiol/levonorgestrel	30	0.15
Norinyl 1+35-21, Norinyl 1+35-28 (X)(G) ethinyl estradiol/norethindrone	35	1
Norinyl 1+50-21, Norinyl 1+50-28 (X)(G) mestranol/norethindrone	50	1
Nortrel 0.5/35 (X)(G) ethinyl estradiol/norethindrone	35	0.5

Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
Nortrel 1/35-21, Nortrel 1/35-28 (X)(G) ethinyl estradiol/norethindrone	35	1
Nortrel 7/7/7-28 (X)(G) ethinyl estradiol/norethindrone	35 35 35	0.5 0.75 1
Ocella (X)(G) ethinyl estradiol/drospirenone	30	3
Ortho-Cept 28 (X)(G) ethinyl estradiol/desogestrel	30	0.15
Ortho-Cyclen 28 (X)(G) ethinyl estradiol/norgestimate	35	0.25
Ortho-Novum 1/35-21, Ortho-Novum 1/35-28 (X)(G) ethinyl estradiol/norethindrone	35	1
Ortho-Novum 1/50-21, Ortho-Novum 1/50-28 (X)(G) mestranol/norethindrone	50	1
Ortho-Novum 7/7/7-28 (X)(G) ethinyl estradiol/norethindrone	35 35 35	0.5 0.75 1
Ortho-Novum 10/11-28 (X) ethinyl estradiol/norethindrone	35 35	0.5 1
Ortho Tri-Cyclen 21, Ortho Tri-Cyclen 28 (X)(G) ethinyl estradiol/norgestimate	35 35 35	0.18 0.215 0.25
Ortho Tri-Cyclen Lo (X)(G) ethinyl estradiol/norgestimate	25 25 25	0.18 0.215 0.25
Ovcon 35 Fe (X)(G) ethinyl estradiol/norethindrone <u>plus</u> ferrous fumarate 75 mg (4 tabs)	35	0.4
Ovcon 50-28, Ovcon 50-28 (X)(G) ethinyl estradiol/norethindrone	50	1
Ovral-21, Ovral-28 (X)(G) ethinyl estradiol/norgestrel	50	0.5

Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
Portia (X)(G) ethinyl estradiol/levonorgestrel	30	0.15
Previfem (X) ethinyl estradiol/norgestimate	35	0.25
Quasense (X) ethinyl estradiol/levonorgestrel	30	0.15
Reclipsen (X)(G) ethinyl estradiol/desogestrel plus ferrous fumarate 75 mg (4 tabs)	30	0.15
Safyral (X) ethinyl estradiol/drospirenone plus levomefolate calcium 0.451 mg	30	3
Sprintec 28 (X)(G) ethinyl estradiol/norgestimate	35	0.25
Syeda (X) ethinyl estradiol/drospirenone	30	3
Tarina Fe 1/20 (X)(G) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg (7 tabs)	20	1
Taytulla Fe 1/20 (X)(G) (Softgel caps) ethinyl estradiol/norethindrone plus ferrous fumarate 75 mg (4 Softgel caps)	20	1
Tilia Fe (X)(G)	20	1
ethinyl estradiol/norethindrone plus ferrous	30	1
fumarate 75 mg (7 tabs)	35	1
Tri-Legest 21 (X)(G)	20	1
ethinyl estradiol/norethindrone	30 35	1 1
Tri Lagget Eq.(Y)(G)	20	1
Tri-Legest Fe (X)(G) ethinyl estradiol/norethindrone	30	1
plus ferrous fumarate 75 mg (7 tabs)	35	1
Tri-Levlen 21, Tri-Levlen 28 (X)(G)	30	0.05
ethinyl estradiol/levonorgestrel	40	0.075
	30	0.125

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Tri-Lo-Estarylla (X)(G)         25         0.18           ethinyl estradiol/norgestimate         25         0.215           25         0.25         0.18           ethinyl estradiol/norgestimate         25         0.215           ethinyl estradiol/norgestimate         25         0.25           TriNessa (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25         0.25           Tri-Norinyl 21, Tri-Norinyl 28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         35         1           35         0.5           Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           Tri-Sprintec (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215	Combined Oral Contraceptive	Estrogen (mcg)	Progesterone (mg)
25	Tri-Lo-Estarylla (X)(G)	25	0.18
Tri-Lo-Sprintec (X)(G)         25         0.18           ethinyl estradiol/norgestimate         25         0.215           25         0.25           TriNessa (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25         0.25           Tri-Norinyl 21, Tri-Norinyl 28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         35         1           35         0.5           Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18	ethinyl estradiol/norgestimate	25	0.215
ethinyl estradiol/norgestimate         25         0.215           25         0.25           TriNessa (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25         0.25           Tri-Norinyl 21, Tri-Norinyl 28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         35         0.5           Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18		25	0.25
25	Tri-Lo-Sprintec (X)(G)	25	0.18
TriNessa (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Norinyl 21, Tri-Norinyl 28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         35         1           35         0.5           Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18	ethinyl estradiol/norgestimate	25	0.215
ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Norinyl 21, Tri-Norinyl 28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         35         1           35         0.5           Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18		25	0.25
35   0.25	TriNessa (X)(G)	35	0.18
Tri-Norinyl 21, Tri-Norinyl 28 (X)(G)         35         0.5           ethinyl estradiol/norethindrone         35         1           35         0.5           Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18	ethinyl estradiol/norgestimate	35	0.215
ethinyl estradiol/norethindrone         35         1           35         0.5           Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18		35	0.25
35   0.5		35	0.5
Triphasil-21, Triphasil-28 (X)(G)         30         0.050           ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18	ethinyl estradiol/norethindrone	35	1
ethinyl estradiol/levonorgestrel         40         0.075           30         0.125           Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18		35	0.5
30   0.125	Triphasil-21, Triphasil-28 (X)(G)	30	0.050
Tri-Previfem (X)(G)         35         0.18           ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18	ethinyl estradiol/levonorgestrel	40	0.075
ethinyl estradiol/norgestimate         35         0.215           35         0.25           Tri-Sprintec (X)(G)         35         0.18		30	0.125
35 0.25 Tri-Sprintec (X)(G) 35 0.18	Tri-Previfem (X)(G)	35	0.18
Tri-Sprintec (X)(G) 35 0.18	ethinyl estradiol/norgestimate	35	0.215
1		35	0.25
ethinyl estradiol/norgestimate 35 0.215	Tri-Sprintec (X)(G)	35	0.18
0.213	ethinyl estradiol/norgestimate	35	0.215
35 0.25		35	0.25
Trivora (X)(G) 30 0.05	Trivora (X)(G)	30	0.05
ethinyl estradiol/levonorgestrel 40 0.075	ethinyl estradiol/levonorgestrel	40	0.075
30 0.125		30	0.125
Velivet (X)(G) 25 0.1	Velivet (X)(G)	25	0.1
ethinyl estradiol/desogestrel 25 0.125	ethinyl estradiol/desogestrel	25	0.125
25 0.15		25	0.15
Yasmin (X)(G) 30 3	Yasmin (X)(G)	30	3
ethinyl estradiol/drospirenone	ethinyl estradiol/drospirenone		
Yaz (X)(G) 20 3	Yaz (X)(G)	20	3
ethinyl estradiol/drospirenone	ethinyl estradiol/drospirenone		
Zovia 1/35E-28 (X)(G) 35 1	Zovia 1/35E-28 (X)(G)	35	1
ethinyl estradiol/ethynodiol diacetate	ethinyl estradiol/ethynodiol diacetate		
Zovia 1/50E-28 (X)(G) 50 1	Zovia 1/50E-28 (X)(G)	50	1
ethinyl estradiol/ethynodiol diacetate	ethinyl estradiol/ethynodiol diacetate		

mcg

#### APPENDIX H.2: EXTENDED-CYCLE ORAL CONTRACEPTIVES

#### 91 Day

ethinyl estradiol/levonorgestrel (X) 1 tab daily x 91 days; repeat (no tablet-free days)

Ashlyna (G) Tab: levonorgest 15 mcg/eth est 30 mcg (84) + eth est 10 mcg (7) (91 tabs/pck)

Jolessa (G) Tab: levonorgest 15 mcg/eth est 30 mcg (84) + inert tabs (7) (91 tabs/pck)

LoSeasonique Tab: levnorgest 0.1 mcg/eth est 20 mcg (84) + eth est 10 mcg (7) (91 tabs/pck)

Quartette (G) Tab: levonorgest 15 mcg/eth est 30 mcg (84) + eth est 10 mcg (7) (91 tabs/pck)

Quasense (G) Tab: levonorgest 15 mcg/eth est 30 mcg (84) + inert tabs (7)

(91 tabs/pck)

Seasonale (G) Tab: levonorgest 15 mcg/eth est 30 mcg (84) + inert tabs (7) (91 tabs/pck)

Seasonique (G) Tab: levnorgest 15 mcg/eth est 30 mcg (84) + eth est 10 mcg (7) (91 tabs/pck)

#### 365 Day

Brand

▶ ethinyl estradiol/levonorgestrel (X) 1 tab daily x 28 days; repeat (no tablet-free days)

Lybrel Tab: levnorgest 0.09 mcg/eth est 20 mcg (28 tabs/pck)

## APPENDIX H.3: PROGESTERONE-ONLY ORAL CONTRACEPTIVES ("MINI-PILL")

Progesterone

Comment: Take progestin-only pills at the same time each day (within a 3-hour time window). If a pill is missed, another method of contraception should be used for the remainder of the pill pack.		
Camila (X)(G)	norethindrone	35
Errin (X)(G)	norethindrone	35
Jolivette (X)(G)	norethindrone	35
Micronor (X)(G)	norethindrone	35
Nora-BE (X)(G)	norethindrone	35
Nor-QD (X)(G)	norethindrone	35
Ovrette (X)	norgestrel	7.5

#### APPENDIX H.4: INJECTABLE CONTRACEPTIVES

#### APPENDIX H.4.1: Injectable Progesterone

#### 90 Days

Comment: Administer first dose within 5 days of onset of normal menses, within 5 days postpartum if not breastfeeding, or at 6 weeks postpartum if breastfeeding exclusively. Do not use for >2 years unless other methods are inadequate.

#### medroxyprogesterone (X)(G)

Depo-Provera 150 mg deep IM q 3 months

Vial: 150 mg/ml (1 ml); Prefilled syringe: 150 mg/ml

Depo-SubQ 104 mg SC q 3 months

Prefilled syringe: 104 mg/ml (0.65 ml) (parabens)

#### APPENDIX H.5: TRANSDERMAL CONTRACEPTIVE

#### Ethinyl Estradiol/Norelgestromin

**Comment:** Apply the transdermal patch to the abdomen, buttock, upper-outer arm, or upper torso. *Do* not apply the transdermal patch to the breast. Rotate the site (however, may use the same anatomical area).

► ethinyl estradiol/norelgestromin (X)(G) apply one patch once weekly x 3 weeks; then 1 patch-free week; then repeat sequence

Ortho Evra

Transdermal patch: eth est 20 mcg/norel 150 mcg per day (1, 3/pck)

#### APPENDIX H.6: CONTRACEPTIVE VAGINAL RINGS

#### Ethinyl Estradiol/Etonogestrel

Comment: The vaginal ring should be inserted prior to, or on 5th day, of the menstrual cycle. Use of a backup method is recommended during the first week. When switching from oral contraceptives, the vaginal ring should be inserted anytime within 7 days after the last active tablet and no later than the day a new pill pack would have been started (no backup method is needed). If the ring is accidently expelled for less than 3 hours, it should be rinsed with cool to lukewarm water and reinserted promptly. If ring removal lasts for more than 3 hours, an additional contraceptive method should be used. If the ring is lost, a new ring should be inserted and the regimen continued without alteration.

etonogestrel/ethinyl estradiol (X) insert 1 ring vaginally and leave in place for 3 weeks; then remove for 1 ring-free week; then repeat

NuvaRing Vag ring: eth est 15 mcg/eton 120 mcg per day (1, 3/pck)

#### APPENDIX H.7: SUBDERMAL CONTRACEPTIVES

**Comment**: Implants must be inserted within 7 days of the onset of menses. A complete physical examination is required annually. Remove if pregnancy, thromboembolic disorder including thrombophlebitis, jaundice, visual

disturbances. Not for use by patients with hypertension, diabetes, hyperlipidemia, impaired liver function, epilepsy, asthma, migraine, depression, cardiac or renal insufficiency, thromboembolic disorder including thrombophlebitis, prolonged immobilization, or who are smokers.

▶ etonogestrel (X) implant rod subdermally in the upper inner non-dominant arm; remove and replace at the end of 3 years

### Implanon, Nexplanon

*Implantable rod*: 68 mg implant for subdermal insertion (w. insertion device; latex-free)

levonorgestrel (X) implant rods subdermally in the upper inner non-dominant arm; remove and replace at the end of 5 years

#### Norplant

*Implantable rods*: 6-36 mg implants (total 216 mg) for subdermal insertion (1 kit w. sterile supplies)

#### APPENDIX H.8: INTRAUTERINE CONTRACEPTIVES

Comment: Indicated in females who have had at least one child and who are in a stable, mutually monogamous relationship. Re-examine after menses within 3 months (recommend 4-6 weeks) to check placement.

#### levonorgestrel (X)

Kyleena IUD: 19.5 mg (replace at least every 5 years)

Liletta *IUD*: 52 mg (replace at least every 3 years)

Mirena IUD: 52 mg (replace at least every 5 years)

Skyla IUD: 13.5 mg (replace at least every 3 years)

#### APPENDIX H.9: EMERGENCY CONTRACEPTION

**Comment:** Emergency contraception must be started within 72 hours after unprotected intercourse following a negative urine hCG pregnancy test. If vomiting occurs within 1 hour of taking a dose, repeat the dose.

ethinyl estradiol/levonorgestrel (X) premenarchal: not applicable; 2 tabs as soon as possible after unprotected intercourse or contraceptive failure, then 2 more 12 hours after first dose

#### Preven

Tab: eth est 50 mcg/lev 250 mcg (4/pck) + Pregnancy test: 1 hCG home pregnancy test

#### Yuzpe Regimen

Tab: eth est 50 mcg/lev 250 mcg (4/pck)

▶ levonorgestrel (X)(OTC)(G) Premenarchal: not applicable; <17 years-of-age (prescription required; ≥17 years of age (OTC)

My Way take 1 tab as soon as possible, within 72 hours, after unprotected sex or suspected contraceptive failure

Tab: 1.5 mg

Plan B One Step take 1 tab as soon as possible, within 72 hours, after unprotected sex or suspected contraceptive failure

Tab: 1.5 mg

EContra EZ take 1 tab within 72 hours after unprotected sex or suspected contraceptive failure

*Tab*: 1.5 mg

**▶** *ulipristal* (X)(G) *Premenarchal*: not applicable

Ella 1 tab as soon as possible within 120 hours (5 days) after unprotected sex or contraceptive failure; may repeat dose if vomiting occurs within 3 hours *Tab*: 30 mg



## APPENDIX I: ANESTHETIC AGENTS FOR LOCAL INFILTRATION AND DERMAL/ MUCOSAL MEMBRANE APPLICATION

Agents and Indications		
Brand/generic	Indication(s)	
AnaMantle HC lidocaine 3%/hydrocortisone 0.5%	Local anesthetic/steroid; for hemorrhoids, pruritus ani, anal fissure	
Decadron Phosphate with Xylocaine dexamethasone 4 mg/lidocaine 10 mg/ ml (5 ml)	Local anesthetic/steroid; infiltration by injection	
Dyclone dyclonine 0.5%, 0.1%	Local anesthetic; infiltration by injection	
Duranest (B) etidocaine 1% (30 ml) Duranest (B) w. Epinephrine Inj: etido 1.5%/epi 1:200,000 (30 ml) Dental Cartridge: etido 1.5%/epi 1:200,000 (1.8 ml)	Nerve block and local anesthetic; mouth, pharynx, larynx, trachea, esophagus, anogenital area, urethra Local anesthetic: dental procedures	
Ela-Max 4% Cream (B) lidocaine 4% Ela-Max 5% Cream (B) lidocaine 5%	Local dermal anesthetic and for anorectal irritation and pain	

Agents and Indications	
Brand/generic	Indication(s)
Emla Cream (B) (5, 30 g) Emla Anesthetic Disc (B) (2 discs/box) lidocaine 2.5%/prilocaine 2.5%	Local dermal anesthetic; preparation for phlebotomy, PIV starts, injections
Flector Patch (C/D) (30/box) diclofenac epolamine 180 mg	Local dermal NSAID analgesic
Exparel (B) Vial: 13.3 mg/ml (20 ml) bupivacaine liposome 1.3% susp for inj	Surgical site injection for post-op pain management
LidaMantle (B) cream (1, 2 oz) LidaMantle (B) lotion (177 ml) Lidoderm cream (B) (85 g) lidocaine 3% Lidoderm (B)(G) adhesive patch (10 cm x 14 cm; 30/box) lidocaine 5%	Local dermal anesthetic lotion, cream, and adhesive patch
Ophthaine (B) (15 ml) proparacaine 0.5% ophthalmic solution	Ophthalmic anesthetic for examination/removal of foreign body (eye)
Pliaglis Cream (B) (30 g) lidocaine 7%/tetracaine 7%	Local dermal anesthetic for superficial dermatological procedures
Qutenza (B) (1, 2 patches, each with 50 g tube of cleansing gel) capsaicin 8% patch	Local dermal NSAID analgesic for postherpetic neuralgia
Synera Topical Patch (B) (2, 10/pck) lidocaine 70 mg/tetracaine 70 mg	Local dermal anesthetic for venous access <u>or</u> skin lesion removal
Tetracaine Ophthalmic Solution (B) (15 ml) proparacaine 0.5% ophthalmic solution	Ophthalmic anesthetic for examination/removal of foreign body (eye)
Xylocaine Jelly (B) (5, 10, 20, 30 ml) lidocaine 2% aqueous	For procedures of the urethra, painful urethritis, and endotracheal intubation
Xylocaine Ointment (B) (3.5, 35 g) lidocaine 5% water miscible	For procedures of the urethra, painful urethritis, and endotracheal intubation

Agents and Indications	
Brand/generic	Indication(s)
Xylocaine Topical Solution (B) (100 ml) lidocaine 2% solution Xylocaine Viscous (B) (50 ml) lidocaine 2% viscous solution	Anesthetic for the nasal and oropharyngeal mucosa and the proximal portions of the GI tract
Zingo lidocaine monohydrate 0.5 mg	Hand-held, needle-free device, helium- powered delivery system that numbs site in 1-3 minutes, delivers 0.5 mg sterile lidocaine HCL for intradermal injection for the management of venous access pain
Zostrix (B) (0.7, 1.5, 3 oz) capsaicin 0.025% cream Zostrix HP (B) (1, 2 oz) capsaicin 0.075% emollient cream	Local dermal NSAID analgesic

## APPENDIX J: ORAL PRESCRIPTION NSAIDS

Comment: NSAIDs should be taken with food to decrease gastric upset. Dosing of NSAIDs should be scheduled rather than PRN for maximal benefit. NSAIDs are contraindicated with sulfonamide or aspirin allergy, 3rd trimester pregnancy (causes premature closure of the ductus arteriosus), and coronary artery bypass graft (CABG) surgery. Concomitant use of misoprostol (Cytotec) with NSAIDs reduces gastric upset and potential for ulceration; however, misoprostol is pregnancy category X. Administration of misoprostol in pregnancy can cause spontaneous abortion, premature birth, birth defects, and uterine rupture (beyond the 8th week of pregnancy). NSAIDs and warfarin (Coumadin) are synergistic. With all patients, use the lowest effective dose for the shortest time necessary. NSAIDs should be taken with food to reduce the risk of gastrointestinal adverse side effects (GIASE).

#### GI ADVERSE SIDE EFFECTS:

## (+) MILD; (++) FREQUENT; (+++) MORE FREQUENT/SEVERE

celecoxib (C/D)(G)(+) <2 years: not recommended; 2-12 years, >10-<25 kg: 50 mg bid;≥25 kg: 100 mg once daily; >12 years: 100 mg bid or 200 mg once daily or 200 mg bid or 400 mg once daily; <50 kg, start at lowest dose Celebrex Cap: 50, 100, 200, 400 mg</p>

 $\triangleright$  diclofenac sodium (D)(+++)<12 years: not recommended; ≥12 years:

**Dyloject** administer 37.5 mg IV bolus over 15 seconds q 6 hours; max 150 mg/day

Vial: 37.5 mg/ml (25/box)

Pennsaid 1% in 10 drop increments, dispense and rub into front, side, and back of knee: usually 40 drops (40 mg) qid

*Topical soln:* 1.5% (150 ml)

Pennsaid 2% apply 2 pump actuations (40 mg) and rub into front, side, and back of knee bid

Topical soln: 2% (20 mg/pump actuation; 112 gm)

Solaraze Gel apply to affected areas bid

Gel: 3% (30 mg (100 gm)

Voltaren 50 mg bid or qid or 75 mg bid or 25 mg qid with an additional 25 mg at HS if necessary

*Tab*: 25, 50, 75 mg ent-coat

Voltaren XR 100 mg once daily; rarely, 100 mg bid may be used

Tab: 100 mg ext-rel

Zorvolex 35 mg tid

Gelcap: 18, 35 mg ext-rel

Cataflam Tab: 50 mg Zipsor Gel cap: 25 mg

diclofenac sodium <u>plus</u> misoprostol (X)(++) <12 years: not recommended; ≥12 years:
</p>

Arthrotec Tab: 50, 75 mg

Dolobid Tab: 500\*mg

 $\triangleright$  etodolac (C/D)(G)(+) <12 years: not recommended; ≥12 years:

Lodine initially 600 mg to 1 gm/day in 2-3 divided doses; usual max 1 gm/day in divided doses; may increase to 1.2 gm/day when needed

Tab: 400, 500 mg; Cap: 200, 300 mg

Lodine XL 400 mg to 1 gm once daily; max 1.2 gm/day Tab: 400, 500, 600 mg ext-rel

Nalfon Tab: 200 mg

**Ansaid** *Tab*: 50, 100 mg

ibuprofen/famotidine (B/D)(++) <12 years: not recommended; ≥12 years: 1 tab tid: swallow whole: use lowest effective dose for the shortest duration

Duexis Tab: ibu 800 mg/fam 26.6 mg

indomethacin (B/D)(G)(+++) <14 years: not recommended;  $\geq$ 14 years: 75-100 mg daily in 3-4 divided doses; max 200 mg/day

Indocin Cap: 25, 50 mg; Rectal supp: 50 mg; Oral susp: 25 mg/5 ml; Vial: 1 mg pwdr for reconstitution and IV infusion

Indocin SR Cap: 75 mg ext-rel

Tivorbex Cap: 20, 40 mg

 $\triangleright$  ketoprofen (C/D)(G)(++) <18 years: not recommended; ≥18 years: 75 mg tid or 50 mg qid; max 300 mg/day

Orudis Cap: 50, 75 mg

Oruvail Cap: 100, 150, 200 mg ext-rel

► ketorolac tromethamine (C/D)(G)(+++)

Sprix <17 years: not recommended; ≥17 years: 1 spray each nostril (total dose 31.5 mg) every 6-8 hours prn; max 4 doses/24 hours (total daily dose 126 mg); renal impairment or <50 kg: 1 spray in one nostril (total dose 15.75 mg) every 6-8 hours; max 4 doses/24 hours (63 mg); discard used bottle after 24 hours

Nasal spray: 15.75 mg/100 mcl nasal spray (8 sprays, 1.7 gm)

**Toradol** <17 years: not recommended; ≥17 years: 60 mg as a single IM dose; max 30 mg as a single IV dose; may administer 30 mg IV and 30 mg IM as a single dose; oral dosing is indicated only as continuation therapy to IM or IV dosing; oral formulation should *never* be administered as an initial dose; initiate oral dosing at 20 mg followed by 10 mg q 4-6 hours prn; max oral dosing 40 mg/day; the combined duration of IV/IM/PO dosing is not to exceed 5 days Tab: 10 mg; Inj 15, 30, 60 mg/ml

magnesium chol salicylate (C/D)(G)(+) <12 kg: not recommended; 12-37 kg: 50 mg/kg/day in 2 divided doses; >37 kg: 2.25 gm/day in 2 divided doses; ≥18 years: 3 gm daily at bedtime or in 2 divided doses

Trilisate Tab: 500\*, 750\*mg; 1\*gm; Oral susp: 5 mg/5 ml (cherry cordial)

- $\blacktriangleright$  meclofenamate sodium (B/D)(G)(++) <14 years: not recommended; ≥14 years: 50-100 mg q 4-6 hours or 300-400 mg/day in 3-4 equal doses; max 400 mg/day Meclofen Cap: 50, 100 mg
- > mefenamic acid (C)(G)(++) <14 years: not recommended; ≥14 years: 500 mg once; then, 250 mg q 6 hours

Ponstel Cap: 250 mg

 $\rightarrow$  meloxicam (C/D)(G)(+) <2 years: not recommended;  $\geq 2$ -<12 years: 0.125 mg/kg; max 7.5 mg once daily; ≥12 years: 7.5 mg once daily; max 15 mg/day; Hemodialysis: max 7.5 mg/day

Mobic Tab: 7.5, 15 mg; Oral susp: 7.5 mg/5 ml (100 ml) (raspberry)

Relafen Tab: 500, 750 mg

- nabumetone (C/D)(G)(+) <12 years: not recommended; ≥12 years: 1-2 gm/day in a single dose or 2 divided doses; max 2 gm/day; <50 kg: max 1 gm/day</p>
- naproxen (B)(G)(++) <2 years: not recommended; ≥2-12 years: 5 mg/kg bid; max 15 mg/kg/day has been used; use suspension; 275-550 mg bid or 275 mg every 6-8 hours; max 1.375 gm first day; then, max 1.1 gm/day; Acute gout: 825 mg once, then 275 mg every 8 hours</p>

Naprosyn Tab: 250, 375, 500 mg

Naprosyn Suspension Oral susp: 125 mg/5 ml

naproxen/esomeprazole (as magnesium trihydrate) (C/D)(++)(G) <18 years: not recommended; ≥18 years: one 375/20 or one 500/20 tab bid; take at least 30 minutes before meals; take lowest effective dose

Vimovo 375/20 Tab: nap 375 mg/eso 20 mg Vimovo 500/20 Tab: nap 500 mg/eso 20 mg

- oxaprozin (C/D)(++) <6 years: not recommended; 6-16 years, 21-31 kg: 600 mg once daily; 32-54 kg: 900 mg once daily; ≥55 kg: 1.2 gm once daily; >16 years: 1.2 gm once daily; max 1.8 gm or 26 mg/kg, whichever is less, in divided doses; low body weight, milder disease, or on dialysis: initially 600 mg once daily; max 1.2 gm/day
   Daypro Tab: 600\*
- ightharpoonup piroxicam (C/D)(G)(+++) <12 years: not recommended; ≥12 years: 20 mg once daily

Feldene Cap: 10, 20 mg

**Comment**: Because of the long half-life, steady state blood levels of *piroxicam* are not reached for 7-12 days. Therefore, there is a progressive response over several weeks.

salsalate (C/D)(G)(+) <12 years: not recommended; ≥12 years: 1.5 gm bid or 1 gm tid</p>

Disalcid Tab: 500\*, 750\*mg; Cap: 500 mg

Sulindac (B/D)(G)(+++) 150-200 mg bid; max 400 mg/day; usually x 7-14 days Clinoril Tab: 150\*, 200\*mg

Tolectin DS Cap: 400 mg

Tolectin 600 Tab: 600 mg film-coat

tolmetin (C/D)(G)(+++) <2 years: not recommended; 2-<12 years: 20 mg/kg divided tid to qid; usual range 15-30 mg/kg/day divided tid-qid: max 30 mg/kg/day; ≥12 years: initially 400 mg tid; usual range 600 mg to 1.8 gm/day in divided doses tid-qid; max 1,800 mg/day
</p>

Tolectin Tab: 200\*mg

- nabumetone (C/D)(G)(+) <12 years: not recommended; ≥12 years: 1-2 gm/day in a single dose or 2 divided doses; max 2 gm/day; <50 kg: max 1 gm/day</p>
- naproxen (B)(G)(++) <2 years: not recommended; ≥2 years: 5 mg/kg bid; max 15 mg/kg/day has been used; use suspension; 275-550 mg bid or 275 mg q 6-8

hours; max 1.375 gm first day, then, max 1.1 gm/day; *Acute gout attack*: 825 mg once, then 275 mg every 8 hours

Naprosyn Tab: 250, 375, 500 mg

Naprosyn Suspension Oral susp: 125 mg/5 ml

naproxen/esomeprazole (as magnesium trihydrate) (C/D)(++)(G) <18 years: not recommended; ≥18 years: 1 x 375/20 or 1 x 500/20 tab bid; take at least 30 minutes before meals; use lowest effective dose
</p>

Vimovo 375/20 Tab: nap 375 mg/eso 20 mg Vimovo 500/20 Tab: nap 500 mg/eso 20 mg

➤ oxaprozin (C/D)(++) <6 years: not recommended; 6-16 years, 21-31 kg: 600 mg once daily; 32-54 kg: 900 mg once daily; ≥55 kg: 1.2 gm once daily; >16 years: 1.2 gm once daily; max 1.8 gm or 26 mg/kg/day, whichever is less, in divided doses; Low body weight, milder disease, or on dialysis: initially 600 mg once daily; max 1.2 gm daily

Daypro Tab: 600\*

piroxicam (C/D)(G)(+++) <12 years: not recommended; ≥12 years: 20 mg once daily
</p>

Feldene Cap: 10, 20 mg

Comment: Because of the long half-life, steady state blood levels of *piroxicam* are not reached for 7-12 days. Therefore, there is a progressive response over several weeks

salsalate (C/D)(G)(+) <12 years: not recommended; ≥12 years: 1.5 gm bid or 1
 gm tid
</p>

Disalcid *Tab*: 500\*, 750\*mg; *Cap*: 500 mg Tolectin 600 *Tab*: 600 mg film-coat



# APPENDIX K: TOPICAL CORTICOSTEROIDS BY POTENCY

Comment: All topical, oral, and parenteral corticosteroids are pregnancy category C. Use with caution in infants and children. Steroids should be applied sparingly and for the shortest time necessary. Do not use in the diaper area. Do not use an occlusive dressing. Systemic absorption of topical corticosteroids can induce reversible hypothalamic-pituitary-adrenal (HPA) axis suppression with the potential for clinical glucocorticoid insufficiency.

### Potency guide:

- Face: Low potency
- Ears/scalp margin: Intermediate potency
- Eyelids: Hydrocortisone in ophthalmic ointment base 1%
- Chest/back: Intermediate potency
- · Skin folds: Low potency

Generic	Brand/Formulation/ Frequency	Strength/Volume	
Low Potency			
alclometasone dipropionate (C)	Aclovate Crm bid-tid Aclovate Oint bid-tid	0.05% (15, 45, 60 gm) 0.05% (15, 45, 60 gm)	
fluocinolone acetonide (C)	Synalar Crm bid-qid	0.025% (15, 60 gm)	
hydrocortisone base <u>or</u> acetate (C)(G)	Anusol-HC Crm bid-qid Hytone Crm bid-qid Hytone Oint bid-qid Hytone Lotn bid-qid Hytone Crm bid-qid Hytone Oint bid-qid Hytone Lotn bid-qid U-cort Crm bid-qid	2.5% (30 gm) 1% (1, 2 oz) 1% (1 oz) 1% (2 oz) 2.5% (1, 2 oz) 2.5% (1 oz) 2.5% (1 oz) 1% (7, 28, 35 gm)	
triamcinolone acetonide (C)(G)	Kenalog Crm bid-qid Kenalog Lotn bid-qid Kenalog Oint bid-qid	0.025% (15, 80 gm) 0.025% (60 ml) 0.025% (15, 60, 80 gm)	
Intermediate Potency			
betamethasone valerate (C)(G)	Luxiq Foam bid	0.12% (100 gm)	
clocortolone pivalate (C)	Cloderm Crm tid	0.1% (30, 45, 75, 90 gm)	
desonide (C)(G)	Desonate Gel/Formulation bid-tid DesOwen Crm bid-tid DesOwen Lotn bid-tid DesOwen Oint bid-tid Tridesilon Crm bid-qid Tridesilon Oint bid-qid Verdeso Foam	0.05% (15, 60 gm) 0.05% (15, 60 gm) 0.05% (2, 4 fl oz) 0.05% (15, 60 gm) 0.05% (15, 60 gm) 0.05% (15, 60 gm)	
desoximetasone (C)(G)	Topicort-LP Emol Crm bid	0.05% (15, 60 gm, 4 oz)	
fluocinolone acetonide (C)(G)	Capex Shampoo Derma-Smoothe/FS Oil tid Derma-Smoothe/FS Shampoo Synalar Crm bid-qid Synalar Oint bid-qid	0.01% (4 oz) 0.01% (4 oz) 0.01% (4 oz) 0.025% (15, 30, 60 gm) 0.025% (15, 60 gm)	

Generic	Brand/Formulation/ Frequency	Strength/Volume	
flurandrenolide (C)	Cordran-SP Crm bid to tid Cordran Oint bid-tid Cordran-SP Crm bid-tid Cordran Lotn bid-tid Cordran Oint bid-tid	0.025% (30, 60 gm) 0.025% (30, 60 gm) 0.05% (15, 30, 60 gm) 0.05% (15, 60 ml) 0.05% (15, 60 gm)	
fluticasone propionate (C)(G)	Cutivate Oint bid Cutivate Crm qd-bid Cutivate Lotn qd-bid	0.005% (15, 30, 60 gm) 0.05% (15, 30, 60 gm) 0.05%	
hydrocortisone probutate (C)	Pandel Crm qd-bid	0.1% (15, 45 gm)	
hydrocortisone butyrate (C)(G)	Locoid Crm bid-tid Locoid Oint bid-tid Locoid Soln bid-tid	0.1% (15, 45 g) 0.1% (15, 45 gm) 0.1% (30, 60 ml)	
hydrocortisone valerate (C)(G)	Westcort Crm bid-tid Westcort Oint bid-tid	0.2% (15, 45, 60, 120 gm) 0.2% (15, 45, 60 gm)	
mometasone furoate (C)	Elocon Crm qd Elocon Lotn qd Elocon Oint qd	0.1% (15, 45 gm) 0.1% (30, 60 ml) 0.1% (15, 45 gm)	
prednicarbate (C)	Dermatop Emol Crm bid Dermatop Oint bid	0.1% (15, 60 gm)	
triamcinolone acetonide (C)(G)	Kenalog Crm bid-tid Kenalog Lotn bid-tid Kenalog Emul Spray bid-tid	0.1% (15, 60, 80 gm) 0.1% (60 ml) 0.2% (63, 100 gm)	
High Potency			
amcinonide (C)(G)	Crm bid-tid Lotn bid Oint bid	0.1% (15, 30, 60 gm) 0.1% (20, 60 ml) 0.1% (15, 30, 60 gm)	
betamethasone dipropionate (C)	<b>Sernivo Spray</b> Emul Spray bid	0.05% (60, 120 ml)	
betamethasone dipropionate, augmented (C)	<b>Diprolene AF</b> Emol Crm qd-bid <b>Diprolene</b> Lotn qd-bid	0.05% (15, 50 gm) 0.05% (30, 60 ml)	

Generic	Brand/Formulation/ Frequency	Strength/Volume	
desoximetasone (C)(G)	Topicort Spray bid Topicort Gel bid Topicort Emol Crm bid Topicort Oint bid	0.25% (30, 50, 100 ml) 0.05% (15, 60 gm) 0.25% (15, 60 gm) 0.25% (15, 60 gm)	
diflorasone diacetate (C)	Psorcon e Emol Crm bid Psorcon e Emol Oint qd-tid	0.05% (15, 30, 60 gm) 0.05% (15, 30, 60 gm)	
fluocinonide (C)	Lidex Crm bid-qid Lidex Gel bid-qid Lidex Oint bid-qid Lidex Soln bid-qid Lidex-E Emol Crm bid-qid	0.05% (15, 30, 60, 120 gm) 0.05% (15, 30, 60 gm) 0.05% (15, 30, 60, 120 gm) 0.05% (20, 60 ml) 0.05% (15, 30, 60 gm)	
flurandrenolide (C)	Cordran Oint bid-tid Cordran Crm bid-tid	0.05% (15, 30, 60 gm) 0.025% (30, 60, 120 gm) 0.05% (15, 30, 60, 120 gm)	
halcinonide (C)	Halog Crm bid-tid Halog Oint bid-tid Halog Soln bid-tid Halog-E Emol Crm qd-tid	0.1% (15, 30, 60, 240 gm) 0.1% (15, 30, 60, 120 gm) 0.1% (20, 60 ml) 0.1% (15, 30, 60 gm)	
triamcinolone acetonide (C)(G)	Kenalog Crm bid-tid	0.5% (20 gm)	
Super High Potency			
betamethasone dipropionate, augmented (C)	Diprolene Oint qd-bid Diprolene Gel qd-bid	0.05% (15, 50 gm) 0.05% (15, 50 gm)	
clobetasol propionate (C)(G)	Clobex Shampoo daily Clobex Spray bid Cormax Oint bid Cormax Scalp App Olux Foam Olux E Foam Temovate Crm bid Temovate Gel bid Temovate Oint bid Temovate Scalp App bid Temovate-E Emol Crm bid	0.05% (4 oz) 0.05% (2, 4.5 oz) 0.05% (15, 45 gm) 0.05% (15, 45 gm) 0.05% (50, 100 gm) 0.05% (50, 100 gm) 0.05% (15, 30, 45, 60 gm) 0.05% (15, 30, 45, 60 gm) 0.05% (15, 30, 45, 60 gm) 0.05% (25, 50 ml) 0.05% (15, 30, 60 gm)	

Generic	Brand/Formulation/ Frequency	Strength/Volume	
fluocinonide (C)	Vanos Oint qd-tid	0.1% (30, 60, 120 gm)	
flurandrenolide (C)	Cordran Tape q 12 hours	4 mcg/sq cm (roll of 3" x 80")	
halobetasol propionate (C)	Ultravate Crm qd-bid Ultravate Oint qd to bid	0.05% (15, 45 gm) 0.05% (15, 45 gm)	

## APPENDIX L: ORAL CORTICOSTEROIDS

Comment: Systemic corticosteroids increase glucose intolerance, reduce the action of insulin and oral hypoglycemic agents, reduce adrenal cortex activity, decrease immunity, mask signs of infection, impair wound healing, suppress growth in children, and promote osteoporosis, fluid retention, and weight gain. Use systemic steroids with caution, using the lowest possible dose to affect clinical response, and withdraw (wean) gradually in tapering doses to avoid adrenal insufficiency. The American Academy of Rheumatology (AAR) recommends the following daily doses of calcium and vitamin D for anyone on a chronic systemic corticosteroid regimen: Calcium 1,200-1,500 mg/day and vitamin D 800-1,000 IU/day.

- betamethasone (C)(G) initially 0.6-7.2 mg daily Celestone *Tab*: 0.6 mg; *Syr*: 0.6 mg/5 ml (120 ml)
- cortisone (D)(G) <12 years: not recommended; ≥12 years: initially 25-300 mg daily or every other day

Cortone Acetate Tab: 25 mg

dexamethasone (C)(G)<12 years: not recommended; ≥12 years: initially 0.75-9
 mg/day
</p>

Decadron Tab: 0.5\*, 0.75\*, 4\*mg; Syr: 0.5 mg/5 ml (100 ml) Decadron 5-12 Pak Tabs: 0.75\*mg (12/pck)

- hydrocortisone (C)(G) <12 years: 2-8 mg/day; ≥12 years: 20-240 mg/daily Cortef Tab: 5, 10, 20 mg; Oral susp: 10 mg/5 ml Hydrocortone Tab: 10 mg
- methylprednisolone (C)(G) 4-48 mg/day
   Medrol Tab: 2\*, 4\*, 8\*, 16\*, 24\*, 32\*mg
   Medrol Dosepak Dosepak: 4\*mg tabs (21/pck, 42 pck)
- Prednisolone (C)(G) <12 years: 0.14-2 mg/kg/day in 3-4 doses x 3-5 days; ≥12 years: initially 5-60 mg/day in 1-2 doses x 3-5 days</p>

Flo-Pred Susp: 5, 15 mg/5 ml

Orapred Soln: 15 mg/5 ml (grape) (dye-free, alcohol 2%)

Orapred ODT Tab: 10, 15, 30 mg orally disint (grape)

Pediapred Soln: 5 mg/5 ml (raspberry) (sugar-, alcohol-, dye-free)

Prelone Syr: 15 mg/5 ml

Comment: Flo-Pred does not require refrigeration or shaking prior to use.

▶ prednisone (C)(G) <12 years: 0.14-2 mg/kg/day in 3-4 doses x 3-5 days; >12 years: initially 5-60 mg/day in 1-2 doses x 3-5 days

Deltasone Tab: 2.5\*, 5\*, 10\*, 20\*, 50\*mg

- prednisone (delayed release) (C) <12 years: 0.14-2 mg/kg/day in 3-4 divided doses x 3-5 days; ≥12 years: initially 5-60 mg/day in 1-2 doses x 3-5 days RAYOS Tab: 1, 2, 5 mg del-rel</p>
- triamcinolone (C)(G) <12 years: 0.14-2 mg/kg/day in 3-4 divided doses x 3-5 days; ≥12 years: initially 4-48 mg/day in 1-2 divided doses x 3-5 days
  </p>

Aristocort Tab: 4\*mg

Aristocort Forte Susp: 40 mg/ml (benzoyl alcohol)

Aristocort Aristopak Tab: 4\*mg (16/pck)



# APPENDIX M: PARENTERAL CORTICOSTEROID THERAPY

Comment: Systemic glucocorticosteroids increase glucose intolerance, reduce the action of insulin and oral hypoglycemic agents, reduce adrenal cortex activity, decrease immunity, mask signs of infection, impair wound healing, suppress growth in children, and promote osteoporosis, fluid retention, and weight gain. Use systemic steroids with caution, using the lowest possible dose to affect clinical response, and withdraw (wean) gradually in tapering doses to avoid adrenal insufficiency. The American Academy of Rheumatology (AAR) recommends the following daily doses for anyone on a chronic systemic corticosteroid regimen: Calcium 1,200-1,500 mg/day and vitamin D 800-1,000 IU/day.

betamethasone (C)(G)

Celestone 0.5-9 mg IM/IV x 1 dose

Vial: 3 mg/ml (10 ml)

Celestone Sol span 0.5-9 mg IM/IV x 1 dose; usual IM dose 6 mg *Vial:* 6 mg/ml (10 ml)

- cortisone (D)(G) <12 years: not recommended;≥12 years: 20-300 mg IM
   Cortone Acetate Vial: 50 mg/ml (10 ml)
  </p>
- ► dexamethasone (C)(G) initially 0.5-9 mg IM/IV daily

Dalalone D.P. Vial: 16 mg/ml (1, 5 ml)

Decadron Vial: 4, 24 mg/ml for IM use (5 ml) (sulfites)

Decadron-LA Vial: 8 mg/ml (1, 5 ml)

hydrocortisone (C)(G) <12 years: 2-8 mg/kg loading dose (max 250 mg); then 8 mg/kg/day: >12 years: initially 100-500 mg IM/IV daily

Hydrocortone Vial: 50 mg/ml (5 ml)

**Solu-Cortef** *Vial*: 100 mg (2 ml); 250 mg (2 ml); 500 mg (4 ml); 1 g (8 ml)

- hydrocortisone phosphate (C)(G) for IM, IV, and SC injection Hydrocortone Vial: 50 mg/ml (2 ml)
- ▶ methylprednisolone (C)(G) 40-120 mg IM/week for 1-4 weeks
  Depo-Medrol Vial: 20 mg/ml (5 ml); 40 mg/ml (5, 10 ml); 80 mg/ml (5 ml)
- methylprednisolone sodium succinate (C)(G) <12 years: 1-2 mg/kg loading dose; then 1.6 mg/kg/day in divided doses at least 6 hours apart; ≥12 years: 10-40 mg IV initially; then, IM or IV
  </p>

Solu-Medrol Vial: 40 mg (1 ml), 125 mg (2 ml), 500 mg (4 ml); 1 gm (8 ml); 2 gm (8 ml)

Aristocort Vial: 25 mg/ml (5 ml)

Aristocort Forte Vial: 40 mg/ml (1, 5 ml)(do not administer IV)

**Aristospan** *Vial*: 5 mg/ml (5 ml); 20 mg/ml (1, 5 ml)

TAC-3 Vial: 3 mg/ml (5 ml) for intralesional and intradermal use

#### INJECTABLE CORTICOSTEROID/ANESTHETIC

dexamethasone/lidocaine (C) 0.1-0.75 ml into painful area Decadron Phosphate with Xylocaine Vial: dexa 4 mg/lido 10 mg per ml (5 ml)



# APPENDIX N: INHALATIONAL CORTICOSTEROID THERAPY

Comment: Inhaled corticosteroids are indicated for the long-term control of asthma. Inhaled corticosteroids are not indicated for exercise induced asthma or for relief of acute symptoms (i.e., "rescue"). Low doses are indicated for mild persistent asthma, medium doses are indicated for moderate persistent asthma, and high doses are reserved for severe cases. Titrate to lowest effective dose. To reduce the potential for adverse effects with inhalers, the patient should use a spacer or holding chamber and rinse the mouth and spit after every inhalation treatment. Linear growth should be monitored in children. When inhaled doses exceed 1,000 mcg/day, consider supplements of calcium (1-1.5 g/day), vitamin D (400 IU/day).

#### beclomethasone (C)

Beclovent <6 years: not recommended; 6-12 years: 1-2 inhalations tid-qid or 4 inhalations bid; max 10 inhalations/day; >12 years: 2 inhalations tid-qid or 4 inhalations bid; max 20 inhalations/day

Inhaler: 42 mcg/actuation (6.7 g, 80 inh); 16.8 g (200 inh)

Qvar <12 years: not recommended; ≥12 years: *Previously using only bron-chodilators*: initiate 40-80 mcg bid; max 320 mcg/day; *Previously using an inhaled corticosteroid*: initiate 40-160 mcg bid; max 320 mcg/day; *Previously taking a systemic corticosteroid*: attempt to wean off the systemic drug after approximately 1 week after initiating Qvar

Inhaler: 40, 80 mcg/actuation metered-dose aerosol w. dose counter (8.7 g, 120 inh) (CFC-free)

Vanceril <6 years: not recommended; 6-12 years: 1-2 inhalations tid-qid; >12 years: 2 inhalations tid to qid or 4 inhalations bid

Inhaler: 42 mcg/actuation (16.8 g, 200 inh)

Vanceril Double Strength <6 years: not recommended; 6-12 years: 1-2 inhalations bid; >12 years: 2 inhalations bid

Inhaler: 84 mcg/actuation (12.2 g, 120 inh)

#### **▶** budesonide (B)(G)

Pulmicort Respules use turbuhaler; <12 months: not recommended; ≥12 months-8 years: Previously using only bronchodilators: initiate 0.5 mg/day once daily or in 2 divided doses; may start at 0.25 mg/day; Previously using inhaled corticosteroids: initiate 0.5 mg/day daily or in 2 divided doses; max 1 mg/day; Previously using oral corticosteroids: initiate 1 mg/day daily or in 2 divided doses Inhal susp: 0.25 mg/2 ml (30/box)

Pulmicort Turbuhaler <6 years; not recommended; ≥6-12 years; 1-2 inhalations bid; >12 years: 1-2 inhalations bid; Previously on oral corticosteroids: 2-4 inhalations bid

Turbuhaler: 200 mcg/actuation (200 inh)

### ▶ flunisolide (C)(G)

AeroBid, AeroBid M <6 years: not recommended; 6-15 years: 2 inhalations bid; ≥16 years: initially 2 inhalations bid; max 8 inhalations/day *Inhaler*: 250 mcg/actuation (7 g, 100 inh)

#### ▶ fluticasone (C)(G)

Flovent HFA use Rotadisk: initially 50-88 mcg inh bid; <4 years: not recommended; 4-11 years: initially 50-88 mcg bid; >11 years: initially 100 mcg bid; If previously using an inhaled corticosteroid: initially 100-200 mcg bid; Previously taking an oral corticosteroid: initially 1000 mcg bid

Inhaler: 44 mcg/actuation (7.9 g, 60 inh; 13 g, 120 inh); 110 mcg/actuation (13 gm, 120 inh); 220 mcg/actuation (13 g, 120 inh)

Rotadisk ≥11 years: initially 88 mcg bid; If previously using an inhaled corticosteroid: initially 88-220 mcg bid; If previously taking an oral corticosteroid; initially 880 mcg/day

Rotadisk: 50 mcg/actuation (60 blisters/disk); 100 mcg/actuation (60 blisters/disk); 250 mcg/actuation (60 blisters/disk)

mometasone furoate (C) <12 years: not recommended; ≥12 years: Previously using a bronchodilator or inhaled corticosteroid: 220 mcg q PM or bid; max 440 mcg q PM or 220 mcg bid; Previously using an oral corticosteroid: 440 mcg bid; max 880 mcg/day
</p>

#### Asmanex Twisthaler

Inhaler: 220 mcg/actuation (6.7 g, 80 inh); 16.8 g (200 inh)

## **APPENDIX 0: ORAL ANTIARRHYTHMIA DRUGS**

Antiarrhythmics by Classification With Dose Forms				
Brand/generic Pregnancy Category	Class/Indication(s)	Dose Form(s)		
Betapace sotalol (B)	Class: Class II and III Antiarrhythmic Indications: Documented life-threatening ventricular arrhythmias	<i>Tab</i> : 80*, 120*, 160*, 240*mg		
Betapace AF sotalol (B)	Class: Class II and III Antiarrhythmic Indications: Maintenance of normal sinus rhythm in patients with highly symptomatic atrial fibrillation or atrial flutter who are currently in sinus rhythm	Tab: 80*, 120*, 160*mg		
Calan verapamil (C)(G)	Class: Calcium Channel Blocker Indications: Control (with digitalis) of ventricular rate in patients with chronic atrial fibrillation or atrial flutter; prophylaxis of repetitive paroxysmal supraventricular tachycardia	<i>Tab</i> : 40, 80*, 120*mg		
Cordarone amiodarone (D)(G)	Class: Class III Antiarrhythmic Indications: Documented life-threatening recurrent refractory ventricular fibrillation or hemodynamically unstable ventricular tachycardia	<i>Tab</i> : 200*mg		
Quinidex quinidine sulfate (C)(G)	Class: Class I Antiarrhythmic Indications: Atrial and ventricular arrhythmias	Tab: 300 mg ext-rel		
Inderal propranolol (C)(G) Inderal XL propranolol ext-rel (C)(G) InnoPran XL propranolol ext-rel (C)	Class: Beta-Blocker Indications: Atrial and ventricular arrhythmias; tachyarrhythmias due to digitalis intoxication; reduce mortality and risk of reinfarction in stabilized patients after myocardial infarction	Tab: 10*, 20*, 40*, 60*, 80*mg Cap: 60, 80, 120, 160 mg sust-rel Cap: 80, 120 mg ext-rel		
Mexitil mexiletine (C)	Class: Class IB Antiarrhythmic Indications: Documented life-threatening ventricular arrhythmias	Cap: 150, 200, 250 mg		

Antiarrhythmics by Classification With Dose Forms		
Brand/generic Pregnancy Category	Class/Indication(s)	Dose Form(s)
Multaq dronedarone (C)	Class: IB Antiarrhythmic Indications: Paroxysmal or persistent atrial fibrillation or atrial flutter	<i>Tab</i> : 400 mg
Norpace disopyramide (C)	Class: Class I Antiarrhythmic Indications: Documented life-threatening ventricular arrhythmias	Cap: 100, 150 mg
Procanbid procainamide (C)(G)	Class: Class IA Antiarrhythmic Indications: Life-threatening ventricular arrhythmias	<i>Tab</i> : 500, 1000 mg ext-rel
Quinaglute quinidine gluconate (C)(G)	Class: Class I Antiarrhythmic Indications: Atrial and ventricular arrhythmias	Tab: 324 mg ext-rel
Rythmol propafenone (C)(G)	Class: Class IC Antiarrhythmic Indications: Documented life- threatening ventricular arrhythmias; prolonged recurrence of paroxysmal atrial fibrillation and/or atrial flutter or paroxysmal supraventricular tachycardia associated with disabling symptoms in patients without structural heart disease	Tab: 150*, 225*, 300*mg Cap: 225, 325, 425 mg ext-rel
Sectral acebutolol (B)(G)	Class: Beta-Blocker Indications: Ventricular arrhythmias	Cap: 200, 400 mg
Sotylize sotalol (B)	Class: Class II and III Antiarrhythmic Indications: Documented life-threatening ventricular arrhythmias, and highly symptomatic AFlutter/AFib	Oral soln: 5 mg/ml
Tambocor flecainide acetate (C) (G)	Class: Class IC Antiarrhythmic Indications: Documented lifethreatening ventricular arrhythmias; paroxysmal atrial fibrillation and/ or atrial flutter or paroxysmal supraventricular tachycardia in patients without structural heart disease	<i>Tab</i> : 50, 100*, 150* mg

Antiarrhythmics by Classification With Dose Forms		
Brand/generic Pregnancy Category	Class/Indication(s)	Dose Form(s)
Tenormin atenolol (C)(G)	Class: Beta-Blocker Indications: Reduce mortality and in stabilized patients after myocardial infarction	Tab: 25, 50, 100 mg Inj: 5 mg/ml (10 ml) for IV administration
timolol maleate (C) (G)	Class: Beta-Blocker Indications: Reduce mortality and in stabilized patients after myocardial infarction	<i>Tab</i> : 5, 10*, 20*mg
dofetilide (C)(G)	Class: Class III Antiarrhythmic Indications: Maintenance of normal sinus rhythm in patients with atrial fibrillation or atrial flutter of >1 week duration who were converted to normal sinus rhythm (only for highly symptomatic patients); conversion to normal sinus rhythm	Cap: 125, 250, 500 mcg
Tonocard tocainide (C)(G)	Class: Class I Antiarrhythmic Indications: Documented life-threatening ventricular arrhythmias	<i>Tab</i> : 400*, 600*mg
Toprol XL metoprolol (C)(G)	Class: Beta-Blocker Indications: Ischemic, hypertensive, or cardiomyopathic heart failure	<i>Tab</i> : 25*, 50*, 100*, 200*mg

### APPENDIX P: ORAL ANTINEOPLASIA DRUGS

Antineoplastics With Classification With Dose Forms		
Brand/generic Pregnancy Category	Class/Indications	Dose Forms
Alkeran melphalan (D)	Alkylating Agent	Tab: 2*mg
Arimidex anastrozole (D)	Aromatase Inhibitor	Tab: 1 mg
Aromasin exemestane (D)	Aromatase Inactivator	<i>Tab</i> : 25 mg

Antineoplastics With Classification With Dose Forms		
Brand/ <i>generic</i> Pregnancy Category	Class/Indications	Dose Forms
Arranon nelarabine (D)	Nucleoside Analog	Vial: 250 mg for IV infusion
Casodex bicalutamide (X)	Antiandrogen	<i>Tab</i> : 50 mg
Cytoxan cyclophosphamide (D)	Alkylating Agent	<i>Tab</i> : 25, 50 mg
Eligard leuprolide acetate (X)	GnRH Analog	Inj: 7.5 mg ext-rel per monthly SC injection
Eulexin flutamide (D)	Antiandrogen	<i>Cap</i> : 125 mg
Faslodex fulvestrant (D)(G)	Estrogen Receptor Antagonist	Prefilled syringe for IM inj: 50 mg/ml (2.5, 5 ml/syringe)
Femara letrozole (D)	Aromatase Inhibitor	<i>Tab</i> : 2.5 mg
Gleevec imatinib mesylate (D)	Signal Transduction Inhibitor	<i>Cap</i> : 100 mg
Hydrea hydroxyurea (D)(G)	Substituted Urea	<i>Cap</i> : 500 mg
Iressa gefitinib (D)	Epidermal Growth Factor receptor tyrosine kinase inhibitor	<i>Tab</i> : 250 mg
Leukeran chlorambucil (D)(G)	Alkylating Agent	Tab: 2 mg
Lupron leuprolide (X)	GnRH Analog	Susp for IM inj: 1 mg (daily); 7.5 mg depot (monthly); 22.5 mg depot (every 3 months); 30 mg depot (every 4 months)
Megace, Megace Oral Suspension, Megace ES, megestrol acetate (D)(G)	Progestin	Tab: 20*, 40*mg; Susp: 40 mg/ ml; ES concentrate: 125 mg/ ml, 625 mg/5 ml

Antineoplastics With Classification With Dose Forms		
Brand/generic Pregnancy Category	Class/Indications	Dose Forms
Nexavar sorafenib (D)	Multikinase Inhibitor	<i>Tab</i> : 200 mg
Nolvadex tamoxifen citrate (D) (G)	Anti-estrogen	<i>Tab</i> : 10, 20 mg
Tarceva erlotinib (D)	Kinase Inhibitor	Tab: 25, 100, 150 mg
Velcade bortezomib (D)	Proteasome Inhibitor	Vial: 3.5 mg (pwdr for IV injection after reconstitution)
Viadur leuprolide acetate (X)	GnRH Analog	SC implant: 65 mg depot (replace every 12 months)
Xeloda capecitabine (D)	Fluoropyrimidine (prodrug of 5-fluorouracil)	<i>Tab</i> : 150, 500 mg
Zoladex goserelin acetate (D)	GnRH Analog	SC implant: 3.6 mg depot (28 days), 10.8 mg depot (3-month)
Zometa zoledronic acid (D)	Bisphosphonate	Vial: 4 mg pwdr for reconstitution for IV infusion, single dose



## APPENDIX Q: ORAL AND DEPOT ANTIPSYCHOTIC DRUGS

#### ANTIPSYCHOTIC DRUGS WITH DOSE FORMS

Comment: Patients receiving an antipsychotic agent should be monitored closely for the following adverse side effects: neuroleptic malignant syndrome, extrapyramidal reactions, tardive dyskinesia, blood dyscrasias, anticholinergic effects, drowsiness, hypotension, photo-sensitivity, retinopathy, and lowered seizure threshold. Use lower doses for elderly or debilitated patients. Prescriptions should be written for the smallest practical amount. Foods and beverages containing alcohol are contraindicated for patients receiving any psychotropic drug. Neuroleptic Malignant Syndrome (NMS) and Tardive Dyskinesia (TD) are adverse side effects (ASEs) most often associated with the older antipsychotic drugs. Risk is decreased with

the newer "atypical" antipsychotic drugs. However, these syndromes can develop, although much less commonly, after relatively brief treatment periods at low doses. Given these considerations, antipsychotic drugs should be prescribed in a manner that is most likely to minimize the occurrence, NMS, a potentially fatal symptom complex, is characterized by hyperpyrexia, muscle rigidity, altered mental status and evidence of autonomic instability (irregular pulse or blood pressure, tachycardia, diaphoresis, and cardiac dysrhythmia). Additional signs may include elevated creatine phosphokinase (CPK), myoglobinuria (rhabdomyolvsis), and acute renal failure (ARF). TD is a syndrome consisting of potentially irreversible, involuntary, dyskinetic movements that can develop in patients with antipsychotic drugs. Characteristics include repetitive involuntary movements, usually of the jaw, lips and tongue, such as grimacing, sticking out the tongue and smacking the lips. Some affected people also experience involuntary movement of the extremities or difficulty breathing. The syndrome may remit, partially or completely, if antipsychotic treatment is withdrawn. If signs and symptoms of NMS and/or TD appear in a patient, management should include immediate discontinuation of antipsychotic drugs and other drugs not essential to concurrent therapy, intensive symptomatic treatment, medical monitoring, and treatment of any concomitant serious medical problems. The risk of developing NMS and/or TD, and the likelihood that either syndrome will become irreversible, is believed to increase as the duration of treatment and the total cumulative dose of antipsychotic drugs administered to the patient increase. The first and only FDA-approved treatment for TD is valbenazine (Ingrezza) (see page 395).

#### ► aripiprazole (C)(G)

 $\bar{\text{Abilify Tab: 2, 5, 10, 15, 20, 30 mg; }}$  Oral soln: 1 mg/ml (150 ml) (orange cream) (parabens)

Abilify Discmelt *Tab*: 15 mg orally disintegrating (vanilla) (phenylalanine) Abilify Maintena *Vial*: 300, 400 mg ext-rel pwdr for IM injection after reconstitution; 300, 400 mg single-dose prefilled dual chamber syringes w. supplies

#### asenapine (C)

Saphris SL tab: 2.5, 5, 10 mg

#### **▶** brexpiprazole (C)

Rexulti Tab: 0.25, 0.5, 1, 2, 3, 4 mg

#### **▶** bupropion (C)

Forfivo XL Tab: 450 mg ext-rel

#### cariprazine (NE)

Vraylar Cap: 1.5, 3, 4.5, 6 mg

#### ⇒ chlorpromazine (C)(G)

Thorazine *Tab*: 10, 25, 50, 100, 200 mg; *Cap*: 30, 75, 150 mg sust-rel; *Syr*: 10 mg/5 ml (4 oz, orange-custard); *Vial/Amp*: 25 mg/ml (1, 2 ml) (sulfites)

#### clozapine (B)(G)

Clozapine ODT (G) ODT: 150, 200 mg

Clozaril (G) Tab: 25\*, 100\* mg; ODT: 150, 200 mg

FazaClo ODT (G) ODT: 12.5, 25, 100, 150, 200 mg (phenylalanine)

Versacloz Oral susp: 50 mg/ml (100 ml)

#### ► fluphenazine (C)(G)

Prolixin Tab: 1, 2.5, 5\*, 10 mg (tartrazine); Conc: 5 mg/ml (4 oz w. calib dropper) (alcohol 14%); Elix: 5 mg/ml (2 oz w. calib dropper) (alcohol 14%); Vial: 25 mg/ml (10 ml)

#### ► fluphenazine decanoate (C)(G)

Prolixin Decanoate Vial: 25 mg/ml (5 ml) (benzyl alcohol)

#### ▶ fluphenazine (C)(G)

**Prolixin Ethanate** *Vial*: 25 mg (5 ml) (benzyl alcohol)

#### ► fluphenazine decanoate (C)(G)

Prolixin Decanoate Vial: 25 mg/ml (5 ml) (benzyl alcohol)

#### ► haloperidol (B)(G)

Haldol Tab: 0.5\*, 1\*, 2\*, 5\*, 10\*, 20 mg

#### ≥ iloperidone (C)(G)

Fanapt Tab: 1, 2, 4, 6, 8, 10, 12 mg

#### loxapine (C)

Adasuve Oral inhal pwdr: 10 mg single-use disposable inhaler (5/box)

#### ≥ lurasidone (B)

Latuda Tab: 20, 40, 80 mg

#### **▶** olanzapine fumarate (C)(G)

Zyprexa Tab: 2.5, 5, 7.5, 10, 15, 20 mg

**Zyprexa Zydis** *ODT*: 5, 10, 15, 20 mg (phenylalanine)

#### $\triangleright$ paliperidone palmitate (C)(G)

**Invega** *Tab*: 3, 6, 9 mg ext-rel

Invega Sustenna *Prefilled syringe*: 39, 78, 117, 156, 234 mg ext-rel suspension w. needle

Invega Trinza Prefilled syringe: 273, 410, 546, 819 mg ext-rel suspension

#### **▶** prochlorperazine (C)(G)

Compazine *Tab:* 5, 10 mg; *Cap:* 10, 15 mg sus-rel; *Syr:* 5 mg/5 ml (4 oz) (fruit); *Supp:* 2.5, 5, 25 mg

#### ≥ quetiapine (C)(G)

Seroquel Tab: 25, 100, 200, 300 mg

Seroquel XR Tab: 50, 150, 200, 300, 400 mg ext-rel

#### risperidone (C)(G)

Risperdal Tab: 0.25, 0.5, 1, 2, 3, 4 mg; Soln: 1 mg/ml (30 ml w. pipette); Consta (Inj): 25, 37.5, 50 mg

**Risperdal M-Tabs** *M-tab*: 0.5, 1, 2, 3, 4 mg orally-disint (phenylalanine)

#### **▶** thioridazine (C)(G) Tab: 10, 25, 50, 100 mg

#### **▶** trifluoperazine (C)(G)

Stelazine *Tab*: 1, 2, 5, 10 mg; *Conc*: 10 mg/ml; (2 oz w. calib dropper (banana-vanilla) (sulfites); *Vial*: 2 mg/ml (10 ml)

#### ≥ ziprasidone (C)(G)

Geodon Cap: 20, 40, 60, 80 mg

### APPENDIX R: ORAL ANTICONVULSANT DRUGS

#### ANTICONVULSANT DRUGS WITH DOSE FORMS

#### *▶* brivaracetam (C)

Briviact Tab: 10, 25, 50, 75, 100 mg; Oral soln: 10 mg/ml (300 ml); Vial: 50 mg/5 ml single dose for IV inj

#### carbamazepine (D)(G)

Carbatrol Cap: 200, 300 mg ext-rel Equetro Cap: 100, 200, 300 mg ext-rel

**Tegretol** *Tab*: 100\*, 200\*mg; *Chew tab*: 100\*mg

Tegretol Suspension Oral susp: 100 mg/5 ml (450 ml)(citrus vanilla) (sorbitol) Tegretol-XR Tab: 100, 200, 400 mg ext-rel

#### ≥ clobazam (C)(IV)

Onfi Tab: 10\*, 20\*mg

Onfi Oral Suspension Oral susp: 2.5 mg/ml (120 ml w. 2 dosing syringes)(berry)

#### clonazepam (D)(IV)(G)

Clonazepam ODT *ODT*: 0.125, 0.25, 0.5, 1, 2, oral-dis **Klonopin** *Tab*: 0.5\*, 1, 2 mg

#### *▶ diazepam* (D)(IV)(G)

Diastat Rectal gel delivery system: 2.5 mg

Diastat AcuDial Rectal gel delivery system: 10, 20 mg

Valium Tab: 2\*, 5\*, 10\*mg

Valium Injectable Vial: 5 mg/ml (10 ml); Amp: 5 mg/ml (2 ml); Prefilled syringe: 5 mg/ml (5 ml)

Valium Intensol Conc oral soln: 5 mg/ml (30 ml w. dropper) (alcohol 19%) Valium Oral Solution Oral soln: 5 mg/5 ml (500 ml) (winter green-spice)

#### *▶* divalproex sodium (D)(G)

**Depakene** Cap: 250 mg; Syr: 250 mg/5 ml (16 oz)

**Depakote** *Tab*: 125, 250, 500 mg **Depakote** ER *Tab*: 250, 500 mg ext-rel

Depakote Sprinkle Cap: 125 mg

#### **▶** eslicarbazepine (C)

Aptiom Tab: 200\*, 400, 600\*, 800\* mg

#### $\triangleright$ ethosuccimide (C)(G)

Zarontin Cap: 250 mg; Oral soln: 250 mg/5 ml (raspberry)

#### ≥ ezogabine (C)

Potiga Tab: 50, 200, 300, 400 mg

#### ▶ felbamate (C)(G)

Felbatol Tab: 400\*, 600\*mg

Felbatol Oral Suspension Oral susp: 600 mg/5 ml (4, 8, 32 oz)

Peganone Tab: 250, 500 mg

#### ≥ gabapentin (C)

Horizant Tab: 300, 600 ext-rel

Neurontin (G) Cap: 100, 300, 400 mg; Tab: 600\*, 800\*mg

Neurontin Oral Solution Oral soln: 250 mg/5 ml (480 ml) (strawberry-anise)

#### $\triangleright$ lacosamide (C)(V)(G)

Vimpat *Tab*: 50, 100, 150, 200 mg; *Oral soln*: 10 mg/ml (200, 465 ml); *Vial*: 10 mg/ml soln for IV infusion, single use (20 ml)

#### ▶ lamotrigine (C)(G)

Lamictal Tab: 25\*, 100\*, 150\*, 200\*mg

Lamictal Chewable Dispersible Tab Chew tab: 2, 5, 25, 50 mg (black current)

Lamictal ODT ODT: 25, 50, 100, 200 mg oral-dis

Lamictal XR Tab: 25, 50, 100, 200, 250, 300 mg ext-rel

#### levetiracetam (C)

Elepsia Tab: 1000, 1500 mg ext-rel

Keppra Tab: 250\*, 500\*, 750\*, 1000\*mg

Keppra Oral Solution Oral soln: 100 mg/ml (16 oz) (grape) (dye-free)

Keppra XR Tab: 500, 750 mg ext-rel

Levetiracetam IV (G) Premixed: 500, 1,000, 1,500 mg for IV infusion (100 ml)

#### mephobarbital (D)(II)

Mebaral Tab: 32, 50, 100 mg

#### *▶ methsuximide* (C)

Celontin Kapseals Cap: 150, 300 mg

#### > oxcarbazepine (C)(G)

Trileptal *Tab*: 150, 300, 600 mg; *Oral susp*: 300 mg/5 ml (lemon) (alcohol) Oxtellar XR *Tab*: 150, 300, 600 mg ext-rel

#### ▶ perampanel (C)(III)

Fycompa *Tab*: 2, 4, 6, 8, 10, 12 mg

Fycompa Oral Suspension Oral susp: 0.5 mg/ml (340 ml w. dosing syringe)

#### ▶ phenytoin (D)(G), primidone (D)(G) Dilantin Cap: 30, 100 mg ext-rel

Dilantin Infatabs Chew tab: 50 mg

Dilantin Oral Suspension Oral susp: 125 mg/5 ml (237 ml) (alcohol 6%)

Phenytek Cap: 200, 300 mg ext-rel

#### pregabalin (C)(V)

Lyrica Cap: 25, 50, 75, 100, 200, 225, 300 mg

Lyrica Oral Solution Oral soln: 20 mg/ml

#### **>** primidone (C)

Mysoline *Tab*: 50\*, 250\*mg

Mysoline Oral Solution Oral susp: 250 mg/5 ml (8 oz)

#### rufinamide (C)(G)

Banzel Tab: 200\*, 400\*mg

Banzel Oral Solution Susp: 40 mg/ml (orange) (lactose-free, gluten-free,

dye-free)

#### ≥ tiagabine (C)(G)

Gabitril Tab: 2, 4, 12, 16 mg

#### **▶** topiramate (D)(G)

Topamax Tab: 25, 50, 100, 200 mg

Topamax Sprinkle Caps Cap: 15, 25, 50 mg Trokendi XR Cap: 100, 200 mg ext-rel

**Qudexy** *Tab*: 25, 50, 100, 150, 200 mg ext-rel **Qudexy XR** *Cap*: 25, 50, 100, 150, 200 mg ext-rel

#### vigabatrin (C)

Sabril Tab: 500 mg

Sabril for Oral Solution 500 mg/pkt pwdr for reconstitution

#### ≥ zonisamide (C)

Zonegran Cap: 25, 50, 100 mg



## APPENDIX S: ORAL ANTI-HIV DRUGS WITH DOSE FORMS

#### Aptivus (C) tipranavir

*Gel cap*: 250 mg (alcohol); *Oral soln*: 100 mg/ml (95 ml w. dosing syringe) (Vit E 116 IU/ml) (buttermint-butter, toffee)

Comment: *valganciclovir* is indicated for the treatment of AIDS-related cytomegalovirus (CMV) retinitis.

#### Atripla (D) efavirenz/emtricitabine/tenofovir disoproxil

Tab: efa 600 mg/emtri 200 mg/teno diso 300 mg

#### Combivir (C)(G) lamivudine/zidovudine

Tab: lami 150/zido 300 mg

#### Complera (B) emtricitabine/tenofovir disoproxil fumarate/rilpivirine

Tab: emtri 200 mg/teno diso 300 mg/rilpiv 25 mg

#### Crixivan (C) indinavir sulfate

Cap: 100, 200, 333, 400 mg

#### Cytovene (C)(G) ganciclovir

Cap: 250, 500 mg; Vial: 50 mg/ml single dose (500 mg, 10 ml)

#### Descovy (D) emtricitabine/tenofovir alafenamide/rilpivirine

Tab: emtri 200 mg/teno ala 25 mg

#### Edurant (B) rilpivirine

Tab: 25 mg

#### Emtriva (B) emtricitabine

Cap: 200 mg; Oral soln: 10 mg/ml (170 ml) (cotton candy)

#### Epivir (C)(G) lamivudine

Tab: 150\*, 300 mg; Oral soln: 10 mg/ml (240 ml) (strawberry-banana) (sucrose 3 gm/15 ml)

#### Epzicom (B) abacavir sulfate/lamivudine

Tab: aba 600 mg/lami 300 mg

#### Evotaz (B) atazanavir/cobicistat

Tab: ataz 300/cobi 150 mg

#### Fortovase (B) saguinavir

Soft gel cap: 200 mg

#### Fuzeon (B) enfuvirtide

Vial: 90 mg/ml pwdr for SC inj after reconstitution (1 ml, 60 vials/kit) (preservative-free)

### Genvoya (B) elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide (TAF)

Tab: elv 150 mg/cob 150 mg/emtri 200 mg/teno alafen 10 mg

#### Intelence (C) etravirine

Tab: 25\*, 100, 200 mg

#### Invirase (B) saquinavir mesylate

Hard gel cap: 200 mg

#### Isentress (C) raltegravir (potassium)

Tab: 400 mg film-coat; Chew tab: 25, 100\*mg (orange-banana) (phenylalanine); Oral susp: 100 mg/pkt pwdr for oral susp (banana)

#### Kaletra (C)(G) lopinavir plus ritonavir

Cap: lopin 100 mg/riton 25 mg, lopin 200 mg/riton 50 mg; Oral soln: lopin 80 mg/riton 20 mg per ml (160 ml w. dose cup) (cotton candy) (alcohol 42%) Hard gel cap: 200 mg

#### Lexiva (C)(G) fosamprenavir

Tab: 700 mg; Oral soln: 50 mg/ml (grape, bubble gum) (peppermint)

#### Norvir (B) ritonavir

Soft gel cap: 100 mg (alcohol); Oral soln: 80 mg/ml (8 oz) (peppermint-caramel) (alcohol)

#### Odefsey (D) emtricitabine/rilpivirine/tenofovir alafenamide

Tab: emtri 200 mg/rilpiv 25 mg/tenof alafen 25 mg

#### Prezcobix (B) darunavir/cobicistat

Tab: daru 800 mg/cobi 150 mg

#### Prezista (C) darunavir

Tab: 75, 150, 600, 800 mg; Oral susp: 100 mg/ml (200 ml) (strawberry cream)

#### Rescriptor (C) delavirdine mesylate

Tab: 100, 200 mg

#### Retrovir (C)(G) zidovudine

Tab: 300 mg; Cap: 100 mg; Syr: 50 mg/5 ml (240 ml) (strawberry); Vial: 10 mg/ml (20 ml for IV infusion) (preservative-free)

#### Reyataz (B) atazanavir

Cap: 100, 150, 200, 300 mg

#### Selzentry (B) maraviroc

Tab: 150, 300 mg

#### Stribild (B) elvitegravir/cobicistat/emtricitabine/tenofovir disoproxil fumarate

Tab: elv 150 mg/cob 150 mg/emtri 200 mg/teno diso fumar 300 mg

#### Sustiva (C) efavirenz

Tab: 75, 150, 600, 800 mg; Cap: 50, 200 mg

#### Tivicay (B) dolutegavir

Tab: 10, 25, 50 mg

#### Triumeq (C) abacavir sulfate/dolutegravir/lamivudine

Tab: aba 600 mg/dilu 50 mg/lami 300 mg

#### Trizivir (C)(G) abacavir sulfate/lamivudine/zidovudine

Tab: aba 300 mg/lami 150 mg/zido 300 mg

#### Truvada (B) emtricitabine/tenofovir disoproxil fumarate

Tab: emt 100 mg/teno 150 mg, 133 mg/teno 200 mg, emt 167 mg/teno 250 mg, emt 200 mg/teno 300 mg

#### Valcyte (C)(G) valganciclovir

Tab: 450 mg

#### Videx EC (C)(G) didanosine

Cap: 125, 200, 250, 400 mg ent-coat del-rel; Chew tab: 25, 50, 100, 150, 200 mg (mandarin orange) (buffered with calcium carbonate and magnesium hydroxide, phenylalanine); Pwdr for oral soln: 2 gm (120 ml), 4 gm (240 ml)

#### Videx Pediatric Pwdr for Oral Solution (C) didanosine

Pwdr for oral soln: 2 gm (120 ml), 4 gm (240 ml)

#### Viracept (B) nelfinavir mesylate

*Tab*: 250, 625 mg; *Pwdr for oral soln*: 50 mg/gm (144 gm) (phenylalanine)

#### Viramune (C)(G) nevirapine

Tab: 200\*mg; Oral susp: 50 mg/5 ml (240 ml)

#### Viramune XR (C) nevirapine

Tab: 100, 400 mg ext-rel

#### Viread (C) tenofovir disoproxil fumarate

*Tab*: 150, 200, 250, 300 mg; *Oral pwdr*: 40 mg/1 gm pwdr (60 gm w. dosing scoop)

#### Vistide (C) cidofovir

*Inj*: 75 mg/ml (5 ml vials for IV infusion) (preservative-free)

**Comment**: *cidofovir* is indicated for the treatment of AIDS-related cytomegalovirus (CMV) retinitis.

#### Vitekta (C) elvitegravir

*Inj*: 75 mg/ml (5 ml vials for IV infusion) (preservative-free)

**Comment**: *cidofovir* is indicated for the treatment of AIDS-related cytomegalovirus (CMV) retinitis.

#### Zerit (C)(G) stavudine

Cap: 15, 20, 30, 40 mg; Oral soln: 1 mg/ml pwdr for reconstitution (200 ml) (fruit) (dye-free)

#### Ziagen (C)(G) abacavir sulfate

Tab: 300\*mg; Oral soln: 20 mg/ml (240 ml) (strawberry-banana) (parabens, propylene glycol)



### **APPENDIX T: COUMADIN (WARFARIN)**

#### APPENDIX T.1: COUMADIN TITRATION AND DOSE FORMS

warfarin (X)(G) <18 years: not recommended; ≥18 years: dosage initially 2-5 mg/day; usual maintenance 2-10 mg/day; adjust dosage to maintain INR in therapeutic range:</p>

Venous thrombosis: 2.0-3.0 Atrial fibrillation: 2.0-3.0

Post MI: 2.5-3.5

Mechanical and bioprosthetic heart valves: 2.0-3.0 for 12 weeks after valve inser-

tion, then 2.5-3.5 long-term

Coumadin *Tab*: 1\*, 2\*, 2.5\*, 3\*, 4\*, 5\*, 6\*, 7.5\*, 10\*mg Coumadin for Injection *Vial*: 2 mg/ml (2.5 ml)

Comment: Coumadin for Injection is for peripheral IV administration only.

#### APPENDIX T.2: COUMADIN OVER-ANTICOAGULATION REVERSAL

▶ phytonadione (vitamin K) (G) 2.5-10 mg PO or IM; max 25 mg AquaMEPHYTON

Vial: 1 mg/0.5 ml (0.5 ml), 10 mg/ml (1, 2.5, 5 ml)

Mephyton

Tab: 5 mg

### APPENDIX T.3: AGENTS THAT INHIBIT COUMADIN'S ANTICOAGULATION EFFECTS

Increase Metabolism	Decrease Absorption	Other Mechanism(s)
azathioprine carbamazepine dicloxacillin ethanol griseofulvin nafcillin pentobarbital phenobarbital phenytoin primidone rifabutin rifampin	azathioprine cholestyramine colestipol sucralfate	coenzyme Q10 estrogen griseofulvin oral contraceptives ritonavir spironolactone trazodone vitamin C (high dose) vitamin K

### APPENDIX U: LOW MOLECULAR WEIGHT HEPARINS

Comment: Administer by subcutaneous injection *only*, in the abdomen, and rotate sites. Avoid concomitant drugs that affect hemostasis (e.g., oral anticoagulants and platelet aggregation inhibitors, including *aspirin*, NSAIDs, *dipyridamole*, *sulfinpyrazone*, *ticlopidine*). Not recommended <18 years-of-age.

#### **▶** dalteparin (B)

Fragmin Prefilled syringe: 2500 IU/0.2 ml, 5000 IU/0.2 ml (10/box) (preservative-free); Multidose vial: 1,000 IU/ml (95,000 IU, 9.5 ml) (benzyl alcohol)

#### ► danaparoid (B)

**Orgaran** *Amp*: 750 anti-Xa units/0.6 ml (0.6 ml, 10/box); *Prefilled syringe*: 750 anti-Xa units/0.6 ml (0.6 ml, 10/box) (sulfites)

#### enoxaparin (B)(G)

Lovenox Prefilled syringe: 30 mg/0.3 ml, 40 mg/0.4 ml, 60 mg/0.6 ml, 80 mg/0.8 ml (100 mg/ml) (preservative-free); Vial: 100 mg/ml (3 ml)

#### tinzaparin (B)

Innohep Vial: 20,000 anti-Factor Xa IU/ml (2 ml) (sulfites, benzyl alcohol)

#### APPENDIX V: FACTOR XA INHIBITOR THERAPY

papixaban (C) <12 years: not recommended; >12 years: 5 mg bid; reduce to 2.5 mg bid if any two of the following: ≥80 years, ≤60 kg, serum Cr ≥1.5 Eliquis Tab: 2.5, 5 mg

**Comment**: **Eliquis** is indicated to reduce the risk of stroke and systemic embolism in patients with non-valvular atrial fibrillation (NVAF).

edoxaban (C) <12 years: not recommended; ≥12 years: transition to and from Savaysa; assess CrCl prior to initiation: NVAF CrCl >50 mL/min: 60 mg once daily; CrCl 15-50 mL/min: 30 mg once daily; DVT/PE CrCl >50 mL/min: 60 mg once daily following initial parental anticoagulant; CrCl 15-50 mL/min, <60 kg, or concomitant Pgp inhibitors: 30 mg once daily
</p>

Savaysa Tab: 15, 30, 60 mg

Comment: Savaysa is indicated to reduce the risk of stroke and systemic embolism in patients with non-valvular atrial fibrillation (NVAF), treatment of DVT and pulmonary embolism (PE) following 5-10 days of initial therapy with parenteral anticoagulant. Not for use in persons with NVAF with *CrCl* >95 *mL/min*.

Fondaparinux (B) <12 years: not established; ≥12 years: administer SC; administer first dose no earlier than 6-8 hours after hemostasis is achieved, start warfarin usually within 72 hours of last dose of fondaparinux

Post-op: 2.5 mg once daily x 5-9 days; Hip/Knee Replacement: once daily x 11 days Hip Fracture: once daily x 32 days; Abdominal Surgery: once daily x 10 days Prophylaxis: do not use <50 kg; Treatment: once daily for at least 5 days until INR = 2-3 (usually 5-9 days); max 26 days; <50 kg: 5 mg; 50-100 kg: 7.5 mg; >100 kg: 10 mg

Arixtra Soln for SC inj: 2.5 mg/0.5 ml, 5 mg/0.4 ml, 7.5 mg/0.6 ml, 10 mg/0.8 ml prefilled syringe (10/box) (preservative-free)

prasugrel (B) <12 years: not recommended; ≥12 years: Loading dose: 60 mg once in a single dose; Maintenance: 10 mg once daily; <60 kg: consider 5 mg once daily; take with aspirin 75-325 mg once daily</p>

Effient Tab: 5, 10 mg

Comment: Effient is indicated to reduce the risk of thrombotic cardiovascular events in persons with acute coronary syndrome (ACS) who are to be managed with percutaneous coronary intervention (PCI) including unstable angina, non-ST elevation myocardial infarction (NSTEMI) and STEMI. Do not start if active pathological bleeding (e.g., peptic ulcer, intracranial hemorrhage), prior TIA or stroke, or if patient likely to undergo urgent CABG. Discontinue 7 days before surgery and if TIA or stroke occurs.

rivaroxaban (C) take with food; <12 years: not recommended; ≥12 years:
 Treatment of DVT or PE: 15 mg twice daily for the first 21 days; then 20 mg once daily
</p>

*Reduction in risk of DVT* or *PE recurrence*: 20 mg once daily with the evening meal;  $CrCl < 30 \ mL/min$ : avoid

Prophylaxis of DVT: take 6-10 hours after surgery when hemostasis established, then 20 mg once daily with the evening meal;  $CrCl\ 30-50\ mL/min$ : 10 mg;  $CrCl\ <30\ mL/min$ : avoid; discontinue if acute renal failure develops; monitor closely for blood loss

Hip: treat for 35 days; Knee: treat for 12 days

Non-valvular AF: take once daily with the evening meal; CrCl >50 mL/min: 20 mg; CrCl 15-50 mL/min: 15 mg; CrCl >15 mL/min: avoid

Xarelto Cap: 10, 15, 20 mg

Comment: Xarelto is indicated to reduce the risk of stroke and systemic embolism in non-valvular atrial fibrillation (AF), to treat deep vein thrombosis (DVT) and pulmonary embolism (PE), to reduce the risk of recurrence of DVT and/or PE following 6 months treatment for DVT and/or PE, and prophylaxis of DVT which may lead to PE in patients undergoing knee or hip replacement surgery. Xarelto eliminates the need for bridging with heparin or LMWH; no need for routine monitoring of INR or other coagulation parameters; no need for dose adjustments for age, weight, or gender; no known dietary restrictions. Switching from warfarin or other anticoagulant, see mfr pkg insert.



## APPENDIX W: DIRECT THROMBIN INHIBITOR THERAPY

Comment: Presently there is only one reversal agent for this drug class. *idarucizumab* (Praxbind) is a specific reversal agent for *dabigatran* (Pradaxa). It is a humanized monoclonal antibody fragment (Fab) that binds to *dabigatran* and its acylglucuronide metabolites with higher affinity than the binding affinity of *dabigatran* to thrombin, neutralizing its anticoagulant effects.

### IDARUCIZUMAB REVERSAL AGENT: HUMANIZED MONOCLONAL ANTIBODY FRAGMENT (FAB)

- idarucizumab (NE) <12 years: not established; ≥12 years: administer 5 g (2 vials)</p>
  IV drip or push; administer within 1 hour of removal from vial
  - Praxbind Vial: 2.5 gm/50 ml, single use (preservative-free)
  - Comment: Presently, there is inadequate human and animal data to assess risk of *idarucizumab* (Praxbind) use in pregnancy. Risk/benefit should be considered prior to use.

Pradaxa Cap: 75, 150 mg

Comment: Pradaxa is indicated to reduce the risk of stroke and systemic embolism in non-valvular AF, DVT prophylaxis, PE prophylaxis in patients who have undergone hip replacement surgery, treatment of DVT and PE in patients who have been treated with a parenteral anticoagulant for 5-10 days, and to reduce the risk of recurrent DVT and PE in patients who have been previously treated. Pradaxa is contraindicated in patients with a mechanical prosthetic heart valve.

Desirudin (recombinant hirudin) (C) <12 years: not recommended; ≥12 years: 15 mg SC every 12 hours, preferably in the abdomen or thigh, starting up to 5-15 minutes before surgery (after induction of regional block anesthesia, if used); may continue for 9-12 days post-op; CrCl <60 mL/min: reduce dose (see mfr pkg insert)
</p>

**Iprivask** *Pwdr for SC inj after reconstitution*: 15 mg/single-use vial (10/box) (preservative-free, diluent contains mannitol)

**Comment: Iprivask** is indicated for DVT prophylaxis in patients undergoing hip replacement surgery. It is not interchangeable with other hirudins.



## APPENDIX X: PLATELET AGGREGATION INHIBITOR THERAPY

cilostazol (B) <12 years: not recommended; ≥12 years: 100 mg bid
 Pletal Tab: 50, 100 mg
</p>

Comment: Pletal is an (antiplatelet/vasodilator [PDE III inhibitor]).

Clopidogrel (B) <12 years: not recommended; ≥12 years: 75 mg once daily Plavix Tab: 75, 300 mg
</p>

**Comment: Plavix** is indicated for the reduction of atherosclerotic events in recent MI <u>or</u> stroke, established PAD, non-ST-segment elevation acute coronary syndrome (unstable angina/non-STEMI), <u>or</u> STEMI.

Description 
 Description 
 Description 
 — dipyridamole (B)(G) < 12 years: not recommended; ≥12 years: 75-100 mg qid 
 Persantine Tab: 25, 50, 75 mg

 — dipyridamole (B)(G) < 12 years: 75-100 mg qid 
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 — dipyridamole (B)(G) < 12 years: 75-100 mg qid

Comment: *dipyridamole* is indicated as an adjunct to oral anticoagulants after cardiac valve replacement surgery to prevent thromboembolism.

Aggrenox Cap: dipyr 200 mg/asa 25 mg

▶ pentoxifylline (C) (hemorrhologic [xanthine]) <12 years: not recommended; ≥12 years:

**Trental** *Tab*: 400 mg sust-rel

**prasugrel** (C) <12 years: not recommended; ≥12 years:

Effient Tab: 5, 10 mg

**Comment:** Effient is indicated to reduce the risk of cardiovascular events in patients with acute coronary syndrome (ACS) who are to be managed with percutaneous coronary intervention (unstable angina or non-STEMI), and STEMI when managed with either primary or delayed PCI.

ticagrelor (C) <12 years: not recommended; ≥12 years: initiate 180 mg loading dose once in a single dose with aspirin 325 mg loading dose in a single dose; maintenance 90 mg twice daily with aspirin 75-100 mg once daily; ACS patients may start ticagrelor after a loading dose of clopidogrel
</p>

Brilinta Tab: 90 mg

**Comment**: **Effient** is indicated to reduce the risk of cardiovascular events in patients with acute coronary syndrome (ACS) (unstable angina, non-ST elevation (NSTEMI), myocardial infarction, or STEMI).

► *ticlopidine* (B) <12 years: not recommended; ≥12 years: 250 mg bid Ticlid *Tab*: 250 mg

**Comment**: **Ticlid** is indicated to reduce the risk of thrombotic stroke in selected patients intolerant of aspirin.



## APPENDIX Y: PROTEASE-ACTIVATED RECEPTOR-1 (PAR-1) INHIBITOR THERAPY

vorapaxar (B) <12 years: not established; ≥12 years: administer 2.08 mg once daily; use with aspirin or clopidogrel</p>

**Zontivity** *Tab*: 2.08 mg (equivalent to 2.5 mg *vorapaxar sulfate*)

**Comment: Zontivity** is indicated to reduce thrombotic cardiovascular events in patients with a history of myocardial infarction <u>or</u> with peripheral arterial disease (PAD). Contraindicated with active pathological bleeding (e.g., peptic ulcer, intracranial hemorrhage), prior TIA <u>or</u> stroke. Not recommended with severe hepatic impairment.



### **APPENDIX Z: PRESCRIPTION PRENATAL VITAMINS**

Comment: It is recommended that prenatal vitamins be started at least 3 months prior to conception to improve preconception nutritional status, and continued throughout pregnancy and the postnatal period, in lactating and non-lactating women, and throughout the childbearing years.

- ➤ CitraNatal 90 DHA take 1 tab\* and 1 DHA cap daily

  Tab: thiamine 3 mg, riboflavin 3.4 mg, niacinamide 20 mg, pyridoxine HCL 20 mg, folic acid 1 mg, Vit C 120 mg, Vit D 3 400 IU, Vit E 30 IU, calcium (as citrate) 160 mg, copper (as oxide) 2 mg, iodine (as potassium iodide) 150 mcg, iron (as carbonyl) 90 mg, zinc (as oxide) 25 mg, docusate sodium 50 mg

  Cap: docosahexaenoic acid (DHA) 300 mg
- ➤ CitraNatal Assure take 1 tab and 1 DHA cap daily

  Tab: thiamine 3 mg, riboflavin 3.4 mg, niacinamide 20 mg, pyridoxine HCL 25 mg, folic acid 1 mg, Vit C 120 mg, Vit D3 400 IU, Vit E 30 IU, calcium (as citrate) 125 mg, copper (as oxide) 2 mg, iodine (as potassium oxide) 150 mcg, iron (as carbonyl and ferrous gluconate) 35 mg, zinc (as oxide) 25 mg, docusate sodium 50 mg

  Cap: docosahexaenoic acid (DHA) 300 mg
- ➤ CitraNatal B-Calm take 1 tab every 8 hours; begin with tab #1. *Tab*: pyridoxine HCL 25 mg, folic acid 1 mg, Vit C 120 mg, Vit D3 400 IU, calcium (as citrate) 120 mg, iron (as carbonyl) 20 mg *Tab*: pyridoxine 25 mg

Comment: Citranatal B-Calm may be used as an adjunct treatment to help minimize pregnancy-related nausea and vomiting.

➤ CitraNatal DHA take 1 tab and 1 DHA cap daily

Tab: thiamine 3 mg, riboflavin 3.4 mg, niacinamide 20 mg, pyridoxine HCL 20 mg, folic acid 1 mg, Vit C 120 mg, Vit D3 400 IU, Vit E 30 IU, calcium (as citrate) 125 mg, copper (as oxide) 2 mg, iodine (as potassium oxide) 150 mcg, iron (as carbonyl and gluconate) 27 mg, zinc (as oxide) 25 mg, docusate sodium 50 mg

Cap: docosahexaenoic acid (DHA) 250 mg

#### ➤ CitraNatal Harmony take 1 gelcap daily Gelcap: pyridoxine HCL 25 mg, folic acid 1 mg, Vit D3 400 IU, Vit E 30 IU, calcium (as citrate) 104 mg, iron (as carbonyl and ferrous fumarate) 27 mg,

docusate sodium 50 mg, docosahexaenoic acid (DHA) 260 mg

CitraNatal Rx take 1 tab\* and 1 DHA cap daily

Tab: thiamine 3 mg, riboflavin 3.4 mg, niacinamide 20 mg, pyridoxine HCL 20 mg, folic acid 1 mg, Vit C 120 mg, Vit D3 400 IU, Vit E 30 IU, calcium (as citrate) 125 mg, copper (as oxide) 2 mg, iodine (as potassium iodide) 150 mcg, iron (as carbonyl and gluconate) 27 mg, zinc (as oxide) 25 mg, docusate sodium 50 mg

#### Duet DHA Balanced take 1 tab and 1 gelcap daily

Tab: Vit A (as beta carotene) 2800 IU, thiamine 1.5 mg, riboflavin 2 mg, niacinamide 20 mg, pyridoxine HCL 50 mg, Vit B12 12 mcg, folic acid 1 mg, Vit C 120 mg, Vit D3 640 IU, Vit E 15 IU, calcium (as carbonate) 215 mg, iron (as polysaccharide iron complex and sodium iron EDTA, ferrazone) 25 mg, copper (as oxide) 1.8 mg, magnesium (as oxide) 25 mg, zinc (as oxide) 25 mg, iodine (as potassium iodide) 210 mcg, selenium 65 mcg, choline (as bitartrate) 55 mg Gelcap: omega 3 fatty acids 267 mg (includes docosahexaenoic acid [DHA], eicosapentaenoic acid [EPA], alpha-linolenic acid [ALA], docosapentaenoic acid [DPA]) (gelatin, gluten-free)

#### ▶ Duet DHA Complete take 1 tab and 1 gelcap daily

*Tab*: Vit A (as beta carotene) 3000 IU, thiamine 1.8 mg, riboflavin 4 mg, niacinamide 20 mg, pyridoxine HCL 50 mg, Vit B12 12 mcg, folic acid 1 mg, Vit C 120 mg, Vit D3 800 IU, Vit E 3 mg, calcium (as carbonate) 230 mg, iron (as polysaccharide iron complex and sodium iron EDTA, ferrazone) 27 mg, copper (as oxide) 2 mg, magnesium (as oxide) 25 mg, zinc (as oxide) 25 mg, iodine 220 mcg *Gelcap*: omega 3 fatty acids ≥430 mg (as docosahexaenoic acid (DHA) ≥295 mg, as other omega–3 fatty acids ≥135 mg (eicosapentaenoic acid (EPA), docosapentaenoic acid (DHA) (gluten-free)

#### Natachew take 1 chew tab daily

Chew tab: Vit A 1000 IU (as beta carotene), thiamine 2 mg, riboflavin 3 mg, niacinamide 20 mg, pyridoxine HCL 10 mg, B12 12 mcg, folic acid 1 mg, Vit C 120 mg, Vit D3 400 IU, Vit E 11 IU, iron (as ferrous fumarate) 29 mg (wild berry)

#### Natafort take 1 tab daily

*Tab:* Vit A 1000 IU (as acetate and beta carotene), thiamine 2 mg, riboflavin 3 mg, niacinamide 20 mg, pyridoxine HCL 10 mg, B12 12 mcg, folic acid 1 mg, Vit C 120 mg, Vit D3 400 IU, Vit E 11 IU, iron (as carbonyl and sulfate) 60 mg

#### Neevo DHA take 1 cap daily

Cap: l-methylfolate (as Metafolin) 1.3 mg, thiamin 1.4 mg, riboflavin 1.4 mg, niacinamide 18 mg, pyridoxine HCL 25 mg, B12 1 mg, Vit C 85 mg, Vit D3, 5 mcg, Vit E 15 IU, calcium (as carbonate) 110 mg, iron (ferrous fumarate) 27 mg, iodine (as potassium iodide) 220 mcg, magnesium (as oxide) 60 mg, docosahexaenoic acid (DHA, vegetarian source (algal oil) 581.92 mg (soy, gelatin, sorbitol, glycerin)

Comment: Neevo DHA is indicated as a nutritional supplement during pregnancy, and the prenatal and postnatal periods, in women with dietary needs for the biologically active form of folate, who are at risk for hyperhomocysteinemia, impaired folic acid absorption, and/or impaired folic acid metabolism due to 667C > T mutations in the MTHFR gene.

#### Nexa Plus take 1 cap daily

Cap: pyridoxine HČL 25 mg, folic acid 1.25 mg, Vit C 28 mg, Vit D3 800 IU, Vit E 30 IU, biotin 250 mcg, calcium (as carbonate [158 mg] + docusate calcium[2 mg] 160 mg, iron (as ferrous fumarate) 29 mg, docosahexaenoic acid (DHA, plant-based source [algal oil]) 350 mg (soy)

#### Nexa Select take 1 soft gel cap daily

Soft gel cap: pyridoxine HCL 25 mg, folic acid 1.25 mg, Vit C 28 mg, Vit D3 800 IU, Vit E 30 IU, calcium (as phosphate) 160 mg, iron (as ferrous fumarate) 29 mg, docosahexaenoic acid (DHA) plant-based source (algal oil) 325 mg, docusate sodium 55 mg (soy)

#### ➤ Prenate AM take 1 tab daily

*Tab:* pyridoxine HCL 75 mg, folate (as folic acid 400 mcg + Quatrefolic 1.1 mg [equivalent to 600 mcg folic acid]) 1 mg, Vit B12 12 mcg, calcium (as carbonate) 200 mg, ginger extract 500 mg, lingon-berry 25 mg

#### ➤ Prenate Chewable take 1 chew tab daily

*Chew tab*: pyridoxine HCL 10 mg, Vit B12 125 mcg, calcium (as carbonate) 500 mg, Vit D3 300 IU, biotin 280 mcg, boron amino acid chelate 250 mcg, folate (as Quatrefolic) 1 mg, magnesium (as oxide) 50 mg, blueberry extract 25 mg (Dutch chocolate)

#### Prenate DHA take 1 gel cap daily

Gelcap: pyridoxine HCL 26 mg, folate (as folic acid) 400 mcg + Quatrefolic 1.1 mg [equivalent to 600 mcg folic acid]) 1 mg, Vit B12 13 mcg, Vit C 90 mg, Vit D3 220 IU, Vit E 10 IU, calcium (as carbonate) 145 mg, iron (as ferrous fumarate) 28 mg, magnesium (as oxide) 50 mg, docosahexaenoic acid (DHA) 300 mg (fish oil, soy, gelatin)

#### ➤ Prenate Elite take 1 gel cap daily

Gelcap: Vit A (as beta-carotene) 2600 IU, thiamine 3 mg, riboflavin 3.5 mg, pyridoxine HCl 21 mg, niacinamide 21 mg, pantothenic acid 6 mg, folate (as folic acid 400 mcg + Quatrefolic 1.1 mg [equivalent to 600 mcg folic acid]) 1 mg, Vit B12 13 mcg, Vit C 75 mg, Vit D3 450 IU, Vit E 10 IU, biotin 330 mcg, calcium (as carbonate) 100 mg, iron (as ferrous fumarate) 27 mg, magnesium (as oxide) 25 mg, copper (as oxide) 1.5 mg, iodine 150 mcg, iron (as ferrous fumarate) 26 mg, zinc (as oxide) 15 mg

#### ▶ Prenate Enhance take 1 gel cap daily

Gelcap: pyridoxine HCL 25 mg, folate (as folic acid 400 mcg + Quatrefolic 1.1 mg[equivalent to 600 mcg folic acid]) 1 mg, Vit B12 12 mcg, Vit C 85 mg, Vit D3

1000 IU, Vit E 10 IU, biotin 500 mcg, calcium (as carbonate + Formical) 155 mg, iodine (as potassium) 150 mcg, iron (as ferrous fumarate) 28 mg, magnesium (as oxide) 50 mg, docosahexaenoic acid (DHA) 400 mg (soy, gelatin)

#### ➤ Prenate Essential take 1 gel cap daily

Gelcap: pyridoxine HCL 26 mg, folate (as folic acid 400 mcg + Quatrefolic 1.1 mg [equivalent to 600 mcg folic acid]) 1 mg, Vit B12 13 mcg, Vit C 90 mg, Vit D3 220 IU, Vit E 10 IU, biotin 280 mcg, calcium (as carbonate) 145 mg, iodine (as potassium iodide) 150 mcg, iron (as ferrous fumarate) 29 mg, magnesium (as oxide) 50 mg, docosahexaenoic acid (DHA) 300 mg, eicosapentaenoic acid (EPA) 40 mg (fish oil, soy, gelatin)

#### Prenate Mini take 1 gel cap daily

Gelcap: pyridoxine HCL 26 mg, folate (as folic acid) 400 mcg + Quatrefolic 1.1 mg [equivalent to 600 mcg folic acid]) 1 mg, Vit B<sub>12</sub> 13 mcg, Vit C 60 mg, Vit D<sub>3</sub> 220 IU, Vit E 10 IU, calcium (as carbonate) 100 mg, iron (as carbonyl iron) 29 mg, iodine (as potassium iodide) 150 mcg, biotin 280 mcg, magnesium (as oxide) 25 mg, docosahexaenoic acid (DHA) 300 mg, blueberry extract 25 mg (fish oil, soy, gelatin)

#### ➤ Prenate Restore take 1 gel cap daily

Gelcap: pyridoxine HCL 25 mg, folate (as folic acid 400 mcg + Quatrefolic 1.1 mg [equivalent to 600 mcg folic acid]) 1 mg, Vit B12 12 mcg, Vit C 85 mg, Vit D3 1000 IU, Vit E 10 IU, biotin 500 mcg, calcium (as carbonate + Formical) 155 mg, iron (as ferrous fumarate) 27 mg, magnesium (as oxide) 45 mg, docosahexaenoic acid (DHA) 400 mg, Bacillus coagulans 150 million CFU (as lactospore) 10 mg (soy, gelatin)

#### Prenexa take 1 gel cap daily

Gelcap: pyridoxine HCL 25 mg, folic acid 1.25 mg, Vit C 28 mg, Vit D3 400 IU, Vit E 30 IU, calcium (as phosphate) 160 mg, iron (as ferrous fumarate) 27 mg, docosahexaenoic acid (DHA) plant-based source (algal oil) 300 mg, docusate sodium 55 mg (soy)



# APPENDIX AA: ORAL PRESCRIPTION DRUGS FOR THE MANAGEMENT OF ALLERGY, COUGH, AND COLD SYMPTOMS

Prescription drugs for the management of allergy symptoms, cough, and symptoms of the common cold are listed in alphabetical order by brand name.

Legend:	acriv	acrivastine
	benzo	benzonatate
	brom	brompheniramine

carb	carbinoxamine
carbeta	carbetapentane
chlor	chlorpheniramine
cod	codeine
cypro	cyproheptadine
deslorat	desloratadine
dexchlo	chlorpheniramine
dextro	dextromethorphan
diphen	diphenhydramine
guaiac	potassium guaiacosulfonate
guaif	guaifenesin
homat	homatropine
hydro	hydrocodone
hydrox	hydroxyzine
meth	methscopolamine
phenyle	phenylephrine
prometh	promethazine
pseud	pseudoephedrine
pyril	pyrilamine tannate

- Allerex (C) <12 years: not recommended; ≥12 years: 1 AM tab in the morning and 1 PM tab in the evening prn
  - AM tab: meth 2.5 mg/pseud 120 mg ext-rel; PM tab: meth 2.5 mg/chlor 8 mg/phenyle 10 mg\* ext-rel (Dose Pack 20: 10 AM tabs+10 PM tabs; Dose Pack 60:30 AM tabs+30 PM tabs)
- Allerex DF (C) <12 years: not recommended; ≥12 years: 1 AM tab in the morning and 1 PM tab in the evening prn
  - AM tab: meth 2.5 mg/chlor 4 mg/PM tab: meth 2.5 mg/chlor 8 mg\* (Dose Pack 20:10 AM tabs+10 PM tabs; Dose Pack 60: 30 AM tabs+30 PM tabs)
- Allerex PE (C) <12 years: not recommended; ≥12 years: 1 AM tab in the morning and 1 PM tab in the evening prn</p>

- AM tab: meth 2.5 mg/phenyle 40 mg; PM tab: meth 8 mg/phenyle 10 mg\* (Dose Pack 20: 10 AM tabs+10 PM tabs; Dose Pack 60: 30 AM tabs+30 PM tabs)
- Allerex Suspension (C) <6 years: not recommended; 6-12 years: 2.5-5 ml q 12 hours prn; ≥12 years: 15 ml q 12 hours prn Susp: chlor 3 mg/phenyle 7.5 mg ext-rel (raspberry)</p>
- Atarax (B)(G) <2 years: not recommended; 2-6 years: 6.25 mg q 4-6 hours prn; 6-12 years: 12.5-25 mg q 4-6 hours prn; ≥12 years: 25 mg tid or qid prn Tab: hydrox 10, 25, 50, 100 mg; Syr: 10 mg/5 ml (alcohol 0.5%)</p>
- Bromfed DM (C)(G) <2 years: not recommended; 2-6 years: 1/2 tsp q 4 hours prn; 6-12 years: 1 tsp q 4 hours prn; ≥12 years: 2 tsp q 4 hours prn: max 6 doses/day Susp: brom 2 mg/pseudo 30 mg/dextro 10 mg per 5 ml (butterscotch) (alcohol 0.95%)</p>
- ▶ Bromfed DM Sugar-Free (C)(G) <2 years: not recommended; 2-6 years: 1/2 tsp q 4 hours prn; 6-12 years: 1 tsp q 4 hours prn; >12 years: 2 tsp q 4 hours prn: max 6 doses/day
- Clarinex (C) <6 years: not recommended; ≥6 years: 1/2-1 tab once daily Tab: deslorat 5 mg
- Clarinex RediTabs (C) <6 years: not recommended; 6-12 years: 2.5 mg once daily; ≥12 years: 5 mg once daily ODT: deslorat 2.5.5 mg (tutti-frutti) (phenylalanine)
- Clarinex Syrup (C) <6 months: not recommended; 6-11 months: 1 mg (2 ml) once daily; 1-5 years: 1.25 mg (2.5 ml) once daily; 6-11 years: 2.5 mg (5 ml) once daily; ≥12 years: 5 mg (10 ml) once daily</p>
  Tab: deslorat 0.5 mg per ml (4 oz) (tutti-frutti) (phenylalanine)
- Duratuss AC 12 (C) <2 years: not recommended; 2-6 years: 1/2 tsp q 12 hrs prn; >6-12 years: 1 tsp q 12 hours prn; >12 years: 1-2 tsp q 12 hours prn Susp: diphen 12.5 mg/dextro 15 mg/phenyle 15 mg per 5 ml (strawberry banana) (sugar-free, alcohol-free, phenylalanine)
- Duratuss DM (C) <2 years: not recommended; 2-6 years: 1/4 tsp q 4 hrs prn; >6-12 years: 1/2 tsp q 4 hours prn; >12 years: 1 tsp q 4 hours prn; max 6 doses/day Susp: dextro 25 mg/guaif 225 mg per 5 ml (grape) (sugar-free, alcohol-free)
- Duratuss DM 1/2 (C) <2 years: not recommended; 2-6 years: 1/2 tsp q 12 hrs prn; >6-12 years: 1/2-1 tsp q 12 hours prn; >12 years: 1-2 tsp q 12 hours prn; max 2 doses/day
  - Susp: dextro 15 mg/guaif 225 mg per 5 ml (grape) (sugar-free, alcohol-free)
- Flowtuss Oral Solution (C)(II)(G)<6 years: not recommended; 6-12 years: 1/2 tsp q 4-6 hours prn; max 15 ml/day; >12 years: 1-2 tsp q 4-6 hours prn; max 6 tsp/24 hours Oral soln: hydro 2.5 mg/guaif 200 mg per 5 ml (black raspberry)

  Comment: hydrocodone is known to be excreted in breast milk.
- ► Hycodan (C)(III) <6 years: not recommended; 6-12 years: 1/2 tab q 4-6 hours prn; max 3 tabs/day; >12 years: 1 tab q 4-6 hours prn; max 6 tabs/day

  Tab: hydro 5 mg/homat 1.5 mg
  - **Comment**: *hydrocodone* is known to be excreted in breast milk.
- ► Hycodan Syrup (C)(II)(G) <6 years: not recommended; 6-12 years: 1/2 tsp q 4-6 hours prn; max 15 ml/day; >12 years: 1 tsp q 4-6 hours prn Syr: hydro 5 mg/homat 1.5 mg per 5 ml
  - Comment: *hydrocodone* is known to be excreted in breast milk.

- ► Hycofenix Oral Solution (C)(II) <6 years: not recommended; 6-12 years: 1/2 tsp q 4-6 hours prn; max 15 ml/day; >12 years: 1 tsp q 4-6 hours prn Oral soln: hydro 2.5 mg/pseudo 30 mg/guaif 200 mg per 5 ml (black raspberry) Comment: hydrocodone is known to be excreted in breast milk.
- ▶ Obredon Oral Solution (C)(II) <18 years: not recommended: 10 ml q 4-6 hours prn cough; max 60 ml/day

Oral soln: hydro 2.5 mg/guaif 200 mg per 5 ml

Comment: Obredon is indicated only for short-term treatment of cough due to the common cold. Obredon is <u>not</u> indicated for persistent <u>or</u> chronic cough such as occurs with smoking, asthma, chronic bronchitis, <u>or</u> emphysema, <u>or</u> where cough is accompanied by excessive phlegm. Use with caution in patients with diabetes, thyroid disease, Addison's disease, BPH <u>or</u> urethral stricture, and asthma. Obredon is contraindicated with paralytic ileus, anticholinergics, TCAs, and within 14 days of an MAOI. *Hydrocodone* is known to be excreted in human milk. There is <u>no</u> FDA-approved generic form of *hydrocodone/guaifenesin*.

Palgic (C) <2 year: not recommended; 2-3 years: 2 mg tid or qid prn or 0.2-0.4 mg/kg/day divided tid or qid; 3-6 years: 2-4 mg daily prn or 0.2-0.4 mg/kg/day divided tid or qid; >6 years: 4 mg daily prn; max 24 mg/day in divided doses 6-8 hours apart

Tab: carb 4\*mg; Syr: carb 4 mg per 5 ml (bubble gum)

- Periactin (B)(G) <2 years: not recommended; 2-6 years: 2 mg bid-tid; max 12 mg/day; 7-14 years: 4 mg bid-tid; max 16 mg/day; >14 years: initially 4 mg tid prn, then adjust as needed; usual range 12-16 mg/day; max 32 mg/day

  Tab: cypro 4\*mg; Syr: cypro 2 mg per 5 ml
- Prolex-DH (C)(III) <3 years: not recommended; 3-6 years: 1/4-1/2 tsp qid prn; 6-12 years: 1/2-1 tsp qid prn; >12 years: 1-1½ tsp qid prn Liq: hydro 4.5 mg/pot guaiac 300 mg per 5 ml (tropical fruit punch) (alcohol-free, sugar-free)

Comment: hvdrocodone is known to be excreted in breast milk.

Phenergan (C)(G) <2 years: not recommended; 2-6 years: 2 years: 0.5 mg/lb or 6.25-25 mg po or rectally q 6 hours prn; 6-12 years: 12.5 mg tid prn; >12 years: 25 mg po or rectally tid ac and HS prn Tab: 12.5\*, 25\*, 50 mg; Syr: prom 6.25 mg per 5 ml; Syr fortis: prom 25 mg per 5 ml;

Rectal supp: prom 12.5, 25, 50 mg

▶ Promethazine DM (C)(V)(G) <6 years: not recommended; 6-12 years: 1/2-1 tsp q 4-6 hours prn; >12 years: 1 tsp q 4-6 hours prn; Syr: prometh 6.25 mg/dex 15 mg per 5 ml (alcohol 7%)

Comment: Contraindicated with asthma.

Promethazine VC (C)(V)(G) 2-6 years: 1.25 ml q 4-6 hours prn; max 7.5 ml/day; 6-12 years: 2.5 ml q 4-6 hours prn; max 15 ml/day; >12 years: 1 tsp q 4-6 hours prn; max 30 ml/day

Syr: prometh 6.25 mg/phenyle 5 mg per 5 ml (alcohol 7%)

Comment: Contraindicated with asthma.

Promethazine VC w. Codeine (C)(V)(G) <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problems; ≥18 years: 1 tsp q 4-6 hours prn; max 30 ml/day *Syr: prometh* 6.25 mg/*phenyle* 5 mg/cod 10 mg per 5 ml (alcohol 7%)

- Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

  Promethazine w. Codeine (C)(V)(G) <12 years: not recommended; 12-<18: use
- extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problems; ≥18 years: 1 tsp q 4-6 hours prn Liq: prometh 6.25 mg/cod 10 mg per 5 ml (alcohol 7%)

  Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.
- Rynatan (C) <12 years: not recommended; ≥12 years: 1-2 tabs q 12 hours prn Tab: chlor 9 mg/phenyle 25 mg
- Rynatan Pediatric Suspension (C) <2 years: not recommended; 2-6 years: 1/2-1 tsp q 12 hours prn; >6-12 years: 1-2 tsp q 12 hours prn
  Susp: chlor 4.5 mg/phenyle 5 mg
- Ryneze (C) <6 years: not recommended; 6-12 years: 1/2 tab q 12 hours prn; >12 years: 1 tab q 12 hours prn

  Tab: chlor 8 mg/meth 2.5 mg
- Robitussin AC (C)(III)(G) <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problems; ≥18 years: 2 tsp q 4 hours prn; max 60 ml/day</p>
  Liq: cod 10 mg/guaif 100 mg per 5 ml
  - Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.
- ▶ Rondec Syrup (C)(G) <2 years: not recommended; 2-5 years: 1/4 tsp q 4-6 hours prn; max 7.5 ml/day; 6-11 years: 1/2 tsp q 4-6 hours prn; max 15 ml/day; >11 years: 1 tsp qid prn; max 30 ml/day

  Syr: phenyle 12.5 mg/chlor 4 mg per 5 ml (bubblegum) (sugar-free, alcohol-free)
- Semprex-D (B) <12 years: not recommended; ≥12 years: 1 cap q 4-6 hours prn; max 4 doses/day
  - Cap: acriv 8 mg/pseud 60 mg
- ➤ Tanafed DMX (C)(G) <2 years: not recommended; 2-6 years: 1/2-1 tsp q 12 hours prn; 6-12 years: 1-2 tsp q 12 hours prn; >12 years: 2-4 tsp q 12 hours prn Susp: dexchlor 2.5 mg/pseud 75 mg/dextro 25 mg per 5 ml (cotton candy) (alcohol-free)

➤ Tessalon Caps (C) <10 years: not recommended; ≥10 years: 100-200 mg tid prn; max 600 mg/day

Cap: benzo 200 mg

Comment: Swallow whole with a large glass of water. Do not suck or chew.

➤ Tessalon Perles (C) <10 years: not recommended; >10 years: 100-200 mg tid prn; max 600 mg/day

Perles: benzo 100 mg

Comment: Swallow whole with a large glass of water. Do not suck or chew.

➤ Tussi-12 D Tablets (C) <6 years: use susp; 6-11 years: 1/2-1 tab q 12 hours prn; >11 years: 1-2 tabs q 12 hours prn

Tab: carbeta 60 mg/pyril 40 mg/phenyle 10\*mg

➤ Tussi-12 DS (C) <2 years: individualize; 2-6 years: 1/2-1 tsp q 12 hours prn; 6-12 years: 1-2 tsp q 12 hours prn; >12 years: 1-2 tsp q 12 hours prn

Liq: carbeta 30 mg/pyril 30 mg/phenyle 5 mg per 5 ml (strawberry-currant) (tartrazine)

TussiCaps 5 mg/4 mg (C)(III) <6 years: not recommended; 6-11 years: 1 cap q 12 hours prn; max 2 caps/day; >11 years: 2 caps q 12 hours prn; max 4 caps/day Cap: hydro 5 mg/chlor 4 mg ext-rel (alcohol)

Comment: *hydrocodone* is known to be excreted in breast milk.

► TussiCaps 10 mg/8 mg (C)(III) <12 years: not recommended; ≥12 years: 1 cap q 12 hours prn; max 2 caps/day

Cap: hydro 10 mg/chlor 8 mg ext-rel (alcohol)

Comment: *hydrocodone* is known to be excreted in breast milk.

➤ Tussionex (C)(III) <6 years: not recommended; 6-12 years: 1/2 tsp q 12 hours prn; >12 years: 1 tsp q 12 hours prn

Susp: hydro 10 mg/chlor 8 mg per 5 ml ext-rel

Comment: *hydrocodone* is known to be excreted in breast milk.

➤ Tussi-Organidin DM NR Liquid (C)(III) <6 months: not recommended; 6-23 months: 0.6 ml q 4 hours prn; max 3.7 ml/day; 2-5 years: 1.25 ml q 4 hours prn; max 7.5 ml/day; 6-11 years: 2.5 ml q 4 hours prn; max 15 ml/day; ≥12 years: 5 ml q 4 hours prn; max 40 ml/day

Liq: dextro 10 mg/guaif 300 mg per 5 ml (grape; sugar-free, alcohol-free) Comment: hydrocodone is known to be excreted in breast milk.

- ➤ Tussi-Organidin NR (C)(V) <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problems; ≥18 years: 1 tsp q 4 hours prn; max 40 ml/day Liq: guaif 300 mg per 5 ml (grape; sugar-free, alcohol-free</p>
- Tuzistra XR (C)(III) <18 years: not recommended; ≥18 years: 1-2 tsp q 12 hours prn; max 20 ml/day

Liq: cod 14.7 mg/chlor 2.8 mg per 5 ml (cherry)

Comment: Codeine is known to be excreted in breast milk. <12 years: not recommended; 12-<18: use extreme caution; not recommended for children and adolescents with asthma or other chronic breathing problem. The FDA and the European Medicines Agency (EMA) are investigating the safety of using codeine containing medications to treat pain, cough and colds, in children 12-<18 years because of the potential for serious side effects, including slowed or difficult breathing.

▶ Vistaril (C)(G) <6 years: 50 mg/day divided tid-qid prn; 6-12 years: 50-100 mg daily prn divided tid or qid; >6 years: 100 mg divided tid or qid prn Cap: hydrox 25, 50, 100 mg; Susp: hydrox 25 mg/5 ml (lemon)

### **APPENDIX BB: SYSTEMIC ANTI-INFECTIVE DRUGS**

- Adverse effects of aminoglycosides include nephrotoxicity and ototoxicity.
- Use cephalosporins with caution in persons with penicillin allergy due to potential cross allergy.
- Sulfonamides are contraindicated with sulfa allergy and G6PD deficiency. A high fluid intake is indicated during sulfonamide therapy.
- Tetracyclines should be taken on an empty stomach to facilitate absorption. Tetracyclines should not be taken with milk (binds to calcium).
- Tetracyclines are contraindicated during pregnancy and breastfeeding, and in children <8 years-of-age, due to the risk of developing tooth enamel discoloration.</li>
- Systemic quinolones and fluoroquinolones are contraindicated in pregnancy and children <18 years-of-age due to the risk of joint dysplasia.</li>

Anti-infectives by Class With Dose Forms		
Generic Name	Brand Name	Dose Form/Volume
Amebicide		
chloroquine phosphate (C)	Aralen	Tab: 500 mg; Inj: 50 mg/ml (5 ml)
iodoquinol (C)	Yodoxin	<i>Tab</i> : 210, 650 mg
metronidazole (not for	Flagyl	<i>Tab</i> : 250*, 500* mg
use in 1st; B in 2nd, 3rd)(G)	Flagyl 375	<i>Cap</i> : 375 mg
<i>314)</i> (3)	Flagyl ER	Tab: 750 mg ext-rel
tinidazole (C)	Tindamax	<i>Tab</i> : 250*, 500* mg
Anthelmintic		
albendazole (C)(G)	Albenza	<i>Tab</i> : 200 mg
ivermectin (C)(G)	Stromectol	Tab: 3 mg
mebendazole (C)(G)	Emverm, Vermox	Chew tab: 100 mg
praziquantel (B)	Biltricide	Tab: 600 mg film-coat (scored for half or quarter dose)
pyrantel pamoate (C)(G)	Antiminth, Pin-X	Cap: 180 mg; Liq: 50 mg/ml (30 ml); 144 mg/ml (30 ml); Oral susp: 50 mg/ml (30 ml) (caramel) (sodium benzoate, tartrazine-free)

Anti-infectives by Class With Dose Forms		
Generic Name	Brand Name	Dose Form/Volume
Thiabendazole (C)(G)	Mintezol  (currently not available in the United States)	Chew tab: 500*mg (orange); Oral susp: 500 mg/5 ml (120 ml) (orange)
Antifungal	,	
atovaquone (C)	Mepron	Susp: 750 mg/5 ml (210 ml)
clotrimazole (B)(G)	Mycelex Troche	10 mg (70, 40/bottle)
fluconazole (C)(G)	Diflucan	Tab: 50, 100, 150, 200 mg; Oral susp: 10, 40 mg/ml (35 ml) (orange)
griseofulvin, microsize (C)	Grifulvin V	Tab: 250, 500 mg; Oral susp: 125 mg/5 ml (120 ml) (alcohol 0.02%)
	Gris-PEG	<i>Tab</i> : 125, 250 mg
itraconazole (C)	Sporanox	Cap: 100 mg; Soln: 10 mg/ml (150 ml); Pulse Pack: 100 mg caps (7/pck)
ketoconazole (C)(G)	Nizoral	<i>Tab</i> : 200 mg
nystatin (C)(G)	Mycostatin	Pastille: 200,000 units/pastille (30 pastilles/pck); Oral susp: 100,000 units/ml (60 ml w. dropper)
terbinafine (B)(G)	Lamisil	<i>Tab</i> : 250 mg
voriconazole (D)(G)	Vfend	<i>Tab</i> : 50, 200 mg
Antimalarial		
atovaquone/	Malarone	Tab: atov 250 mg/proq 100 mg
proguanil (C)	Malarone Pediatric	Tab: atov 62.5 mg/proq 25 mg
chloroquine (C)(G)	Aralen	Tab: 500 mg; Amp: 50 mg/ml (5 ml)
doxycycline (D)(G)	Acticlate	<i>Tab:</i> 75, 150**mg
	Adoxa	<i>Tab</i> : 50, 75, 100, 150 mg ent-coat
	Doryx	Cap: 100 mg; Tab: 50, 75, 100, 150, 200 mg
	Monodox	Cap: 50, 75, 100 mg

Anti-infectives by Class With Dose Forms			
Generic Name	Brand Name	Dose Form/Volume	
	Oracea	Cap: 40 mg del-rel	
	Vibramycin	Cap: 50, 100 mg; Syr: 50 mg/5 ml (raspberry-apple) (sulfites); Oral susp: 25 mg/5 ml (raspberry)	
	Vibra-Tab	Tab: 100 mg film-coat	
hydroxychloroquine (C)(G)	Plaquenil	<i>Tab</i> : 200 mg	
mefloquine (C)	Lariam	<i>Tab</i> : 250 mg	
Antiprotozoal/Antibacte	rial		
metronidazole (not for	Flagyl, Protostat	<i>Tab</i> : 250*, 500* mg	
use in 1st; B in 2nd, 3rd)(G)	Flagyl 375	<i>Cap</i> : 375 mg	
314)(4)	Flagyl ER	Tab: 750 mg ext-rel	
nitazoxanide (C) (G)	Alinia	Tab: 500 mg; Oral susp: 100 mg/5 ml (60 ml) (strawberry)	
tinidazole (C)	Tindamax	<i>Tab</i> : 250*, 500*mg	
Antiviral (for HIV-specific antiviral drugs see page 511)			
acyclovir (C)(G)	Zovirax	Cap: 200 mg; Tab: 400, 800 mg; Oral susp: 200 mg/5 ml (banana)	
amantadine (C)(G)	Symmetrel	<i>Tab:</i> 100 mg; <i>Syr</i> : 50 mg/5 ml (16 oz) (raspberry)	
famciclovir (B)	Famvir	<i>Tab</i> : 125, 250, 500 mg	
lamivudine (C)	Epivir-HBV	Tab: 100 mg; Oral soln: 5 mg/ml (240 ml) (strawberry-banana)	
oseltamivir (C)	Tamiflu	<i>Cap:</i> 75 mg	
rimantadine (C)	Flumadine	<i>Tab</i> : 100 mg	
valacyclovir (B)	Valtrex	<i>Tab</i> : 500 mg; 1 g	
zanamivir	Relenza	Tab: lami 150/zido 300 mg	
Antitubercular			
ethambutol (EMB) (B)(G)	Myambutol	<i>Tab</i> : 100, 400*mg	

Anti-infectives by Class With Dose Forms		
Generic Name	Brand Name	Dose Form/Volume
isoniazid (INH)(C)(G)	generic only	Tab: 100, 300*mg; Syr: 50 mg/5 ml; Inj: 100 mg/ml
pyrazinamide (PZA) (C)	generic only	<i>Tab:</i> 500*mg
rifampin (C)(G)	Priftin	<i>Tab</i> : 150 mg
	Rifadin	Cap: 150, 300 mg
rifampin/isoniazid (C)	Rifamate	Cap: rif 300 mg/iso 150 mg
rifampin/isoniazid/ pyrazinamide (C)	Rifater	<i>Tab: rif</i> 120 mg/ <i>iso</i> 50 mg/ <i>pyr</i> 300 mg
Aminoglycoside		
amikacin (C)	Amikin	Vial: 500 mg, 1 g (2 ml)
gentamicin (C)(G)	Garamycin	Vial: 20, 80 mg/2 ml
streptomycin (D)(G)	Streptomycin	Amp: 1 g/2.5 ml or 400 mg/ml (2.5 ml)
Cephalosporin		
First-Generation Cephal	losporin	
cefadroxil (B)	Duricef	Cap: 500 mg; Tab: 1 g; Oral susp: 250 mg/5 ml (100 ml); 500 mg/5 ml (75, 100 ml) (orange-pineapple)
cefazolin (B)	Ancef, Zolicef	<i>Vial</i> : 500 mg; 1, 10 g
cephalexin (B)	Keflex	Cap: 250, 333, 500, 750 mg; Oral susp: 125, 250 mg/5 ml (100, 200 ml)
Second-Generation Cephalosporin		
cefaclor (B)(G)	generic only	Tab: 500 mg; Cap: 250, 500 mg; Susp: 125 mg/5 ml (75, 150 ml) (strawberry); 187 mg/5 ml (50, 100 ml) (strawberry); 250 mg/5 ml (75, 150 ml) (strawberry); 375 mg/5 ml (50, 100 ml) (strawberry)
	Cefaclor Extended Release	<i>Tab</i> : 375, 500 mg ext-rel

Anti-infectives by Class With Dose Forms		
Generic Name	Brand Name	Dose Form/Volume
cefamandole (B)	Mandol	Vial: 1, 2 g
cefotetan (B)(G)	Cefotan	Vial: 1, 2 g
cefoxitin (B)	Mefoxin	Vial: 1, 2 g
cefprozil (B)(G)	Cefzil	Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine)
ceftaroline (B)	Teflaro	Vial: 400, 600 mg
cefuroxime axetil (B) (G)	Ceftin	Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti)
cefuroxime sodium (B)(G)	Zinacef	Vial: 750 mg; 1.5 g
loracarbef (B)	Lorabid	Pulvule: 200, 400 mg; Oral susp: 100 mg/5 ml (50, 100 ml); 200 mg/5 ml (50, 75, 100 ml) (strawberry bubble gum)
Third-Generation Cepha	alosporin	
cefoperazone (B)	Cefobid	Vial: 1, 2 g pwdr for reconstitution
cefotaxime (B)	Claforan	Vial: 500 mg; 1, 2 g pwdr for reconstitution
cefpodoxime (B)	Vantin	Tab: 100, 200 mg; Oral susp: 50, 100 mg/5 ml (50, 75, 100 ml) (lemon creme)
ceftazidime (B)	Ceftaz	Vial: 1, 2 g pwdr for reconstitution
	Fortaz	Vial: 500 mg; 1, 2 g pwdr for reconstitution
	Tazicef	Vial: 1, 2 g pwdr for reconstitution
	Tazidime	Vial: 1, 2 g pwdr for reconstitution
ceftazidime/ avibactam (B)	Avycaz	Vial: 2.5 g pwdr for reconstitution
ceftibuten (B)	Cedax	Cap: 400 mg; Oral susp: 90 mg/5 ml (30, 60, 90, 120 ml); 180 mg/5 ml (30, 60, 120 ml) (cherry)

Anti-infectives by Class With Dose Forms				
Generic Name	Brand Name	Dose Form/Volume		
Third/Fourth-Generation	Third/Fourth-Generation Cephalosporin			
cefdinir (B)	Omnicef	Cap: 300 mg; Oral susp: 125 mg/5 ml (60, 100 ml) (strawberry)		
cefditoren pivoxil (C)	Spectracef	<i>Tab</i> : 200 mg		
cefepime (B)(G)	Maxipime	Vial: 1 g pwdr for reconstitution		
cefixime (B)	Suprax	Tab/Cap: 400 mg; Oral Susp: 100 mg/5 ml (50, 75, 100 ml)(strawberry)		
ceftaroline (B)	Teflaro	Vial: 400, 600 mg		
ceftriaxone (B)(G)	Rocephin	Vial: 250, 500 mg; 1, 2 g		
ceftolozane/ tazobactam (B)	Zerbaxa	Vial: 1.5 g pwdr for reconstitution		
Fluoroquinolone and Qı	Fluoroquinolone and Quinolone			
First-Generation Quinolone				
enoxacin (C)	Penetrex	<i>Tab</i> : 200, 400 mg		
Second-Generation Fluo	roquinolone			
ciprofloxacin (C)(G)	Cipro	Tab: 250, 500, 750 mg; Oral susp: 250, 500 mg/5 ml (100 ml) (strawberry) IV conc: 10 mg/ml after dilution (20, 40 ml); IV premix: 2 mg/ml (100, 200 ml)		
	Cipro XR	<i>Tab</i> : 500, 1000 mg ext-rel		
	ProQuin XR	Tab: 500 mg ext-rel		
lomefloxacin (C)	Maxaquin	<i>Tab:</i> 400 mg		
norfloxacin (C)(G)	Noroxin	<i>Tab:</i> 400 mg		
ofloxacin (C)(G)	Floxin	<i>Tab</i> : 200, 300, 400 mg		
Third-Generation Fluoroquinolone				
levofloxacin (C)(G)	Levaquin	<i>Tab</i> : 250, 500, 750 mg		

Anti-infectives by Class With Dose Forms				
Generic Name	Brand Name	Dose Form/Volume		
Fourth-Generation Fluo	Fourth-Generation Fluoroquinolone			
gemifloxacin (C)(G)	Factive	<i>Tab</i> : 320*mg		
moxifloxacin (C)(G)	Avelox	<i>Tab</i> : 400 mg		
Ketolide				
telithromycin (C)	Ketek	<i>Tab</i> : 300, 400 mg		
Macrolides				
azithromycin (B)	Zithromax	<i>Tab</i> : 250, 500, 600 mg; <i>Pkt</i> : 1 g for reconstitution (cherry-banana)		
	oral susp generic only	Oral susp: 100 mg/5 ml, (15 ml); 200 mg/5 ml (15, 22.5, 30 ml) (cherry)		
	Zithromax Tri-Pak	Tab: 3 x 500 mg tabs/pck		
	Zithromax Z-Pak	Tab: 6 x 250 mg tabs/pck		
	Zmax	Pkt: 2 g for reconstitution (cherrybanana)		
clarithromycin (C)(G)	Biaxin	Tab: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (50, 100 ml)(fruit punch)		
	Biaxin XL	Tab: 500 mg ext-rel		
dirithromycin (C)(G)	generic only	<i>Tab</i> : 250 mg		
erythromycin base	Ery-Tab	<i>Tab</i> : 250, 333, 500 mg ent-coat		
(B)(G)	PCE	<i>Tab</i> : 333, 500 mg		
erythromycin estolate (B)(G)	Ilosone	Pulvule: 250 mg; Tab: 500 mg; Liq: 125, 250 mg/5 ml (100 ml)		
erythromycin ethylsuccinate (B)(G)	E.E.S.	Tab: 400 mg; Oral susp: 200 mg/5 ml (100, 200 ml) (cherry); 200, 400 mg/5 ml (100 ml)(fruit)		
	EryPed	Oral susp: 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit); Chew tab: 200 mg wafer (fruit)		

Anti-infectives by Class With Dose Forms		
Generic Name	Brand Name	Dose Form/Volume
erythromycin stearate (B)(G)	Erythrocin	Film tab: 250, 500 mg
Penicillin		
amoxicillin (B)(G)	Amoxil	Cap: 250, 500 mg; Tab: 500, 875* mg; Chew tab: 125, 200, 250, 400 mg (cherry-banana-peppermint) (phenylalanine); Oral susp: 125, 250 mg/ml (80, 100, 150 ml) (bubble gum); 200, 400 mg/5 ml (50, 75, 100 ml) (bubble gum); Oral drops: 50 mg/ml (30 ml) (bubble gum)
	Moxatag	Tab: 775 mg ext-rel
	Trimox	Cap: 250, 500 mg; Oral susp: 125, 250 mg/5 ml (80, 100, 150 ml) (raspberrystrawberry)
amoxicillin/clavulanate (B)(G)	Augmentin	Tab: 250, 500, 875 mg; Chew tab: 125, 250 mg (lemon lime); 200, 400 mg (cherry-banana; phenylalanine); Oral susp: 125 mg/5 ml (banana), 250 mg/5 ml (orange) (75, 100, 150 ml); 200, 400 mg/5 ml (50, 75, 100 ml) (orange)
	Augmentin ES-600	Oral susp: 600 mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine)
	Augmentin XR	Tab: 1000*mg ext-rel
ampicillin (B)(G)	Omnipen	Cap: 250, 500 mg; Oral susp: 125, 250 mg/ml (100, 150, 200 ml)
	Principen	Cap: 250, 500 mg; Syr: 125, 250 mg/5 ml
ampicillin/ sulbactam (B)(G)	Unasyn	Vial: 1.5, 3 g
carbenicillin (B)	Geocillin	Tab: 382 mg film-coat

Anti-infectives by Class With Dose Forms		
Generic Name	Brand Name	Dose Form/Volume
dicloxacillin (B)(G)	Dynapen	Cap: 125, 250, 500 mg; Oral susp: 62.5 mg/5 ml (80, 100, 200 ml)
ertapenem (B)	Invanz	Vial: 1 g pwdr for reconstitution
meropenem (B)(G)	Merrem	Vial: 500 mg; 1 g pwdr for reconstitution (sodium 3.92 mEq/g)
penicillin G benzathine (B)(G)	Bicillin LA, Bicillin C-R	Cartridge-needle unit: 600,000 million units (1 ml); 1.2 million units (2 ml); 2.4 million units (4 ml)
	Permapen	Prefilled syringe: 1.2 million units
penicillin G procaine (B)(G)	generic only	Prefilled syringe: 1.2 million units
penicillin v potassium (B)(G)	Pen-Vee K	Tab: 250, 500 mg; Oral soln: 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml)
piperacillin/ tazobactam (B)(G)	Zosyn	Vial: 2, 3, 4 g pwdr for reconstitution
Sulfonamide		
sulfamethoxazole (B/D)(G)	Gantrisin Pediatric	Oral susp: 500 mg/5 ml; Syr: 500 mg/ 5 ml
trimethoprim (C)(G)	Primsol	Oral soln: 50 mg/5 ml (bubble gum) (dye-free, alcohol-free)
	Trimpex	<i>Tab</i> : 100 mg
	Proloprim	<i>Tab</i> : 100, 200 mg
trimethoprim/ sulfamethoxazole (C) (G)	Bactrim, Septra	Tab: trim 80 mg/sulfa 400 mg*
	Bactrim DS, Septra DS	Tab: trim 160 mg/sulfa 800 mg*; Oral susp: trim 40 mg/sulfa 200 mg per 5 ml (100 ml) (cherry) (alcohol 0.3%)
Tetracycline		
demeclocycline (D)	Declomycin	<i>Tab</i> : 300 mg

Anti-infectives by Class With Dose Forms			
Generic Name	Brand Name	Dose Form/Volume	
doxycycline (D)(G)	Adoxa	<i>Tab</i> : 50, 100 mg ent-coat	
	Doryx	<i>Cap</i> : 100 mg	
	Monodox	Cap: 50, 100 mg	
doxycycline (D)(G)	Vibramycin	Cap: 50, 100 mg; Syr: 50 mg/5 ml; (raspberry) (sulfites); Oral susp: 25 mg/5 ml (raspberry-apple); IV conc: doxy 100 mg/asc acid 480 mg after dilution; doxy 200 mg/asc acid 960 mg after dilution	
	Vibra-Tab	Tab: 100 mg film-coat	
minocycline (D)(G)	Dynacin	Cap: 50, 100 mg	
	Minocin	Cap: 50, 100 mg; Oral susp: 50 mg/5 ml (60 ml) (custard) (sulfites, alcohol 5%); Vial: 100 mg soln for inj:	
tetracycline (D)(G)	Achromycin V	Cap: 250, 500 mg	
	Sumycin	Tab: 250, 500 mg; Oral susp: 125 mg/5 ml (fruit) (sulfites)	
Macrolide/Sulfisoxazole			
erythromycin ethylsuccinate/ sulfisoxazole (C)(G)	Pediazole	Oral susp: eryth 200 mg/sulf 600 mg per 5 ml (100, 150, 200 ml) (strawberry-banana)	
Miscellaneous	Miscellaneous		
aztreonam (B)	Cayston	Vial: 75 mg pwdr for reconstitution (preservative-free)	
chloramphenicol (C)(G)	Chloromycetin	Vial: 1 gm	
clindamycin (B)(G)	Cleocin	Cap: 75 (tartrazine), 150 (tartrazine), 300 mg; Oral susp: 75 mg/5 ml (100 ml) (cherry); Vial: 150 mg/l (2, 4 ml) (benzyl alcohol)	

#### (continued)

Anti-infectives by Class With Dose Forms									
Generic Name	Brand Name	Dose Form/Volume							
dalbavancin (C)	Dalvance	Vial: 500 mg pwdr for IV infusion (preservative-free)							
daptomycin (B)(G)	Cubicin	Vial: 500 mg pwdr for reconstitution							
doripenem (B)	Doribax	Vial: 500 mg pwdr for reconstitution							
fosfomycin (B)	Monurol	Sachet: 3 gm single dose (mandarin orange; sucrose)							
imipenem/cilastatin (C)(G)	Primaxin	Vial: imip 500 mg/cila 500 mg; imip 750 mg/cila 750 mg pwdr for reconstitution							
lincomycin (B)(G)	Lincocin	Vial: 300 mg/ml (10 ml)							
linezolid (C)(G)	Zyvox	Tab: 400, 600 mg; Oral susp: 100 mg/5 ml (orange) (phenylalanine); IV: 2 mg ml (100, 200, 300 ml)							
meropenem (B)	Merrem	Vial: 500 mg; 1 g (sodium 3.92 mEq/g)							
nitrofurantoin (B)(G)	Furadantin	Oral susp: 25 mg/5 ml (60 ml)							
	Macrobid	<i>Cap</i> : 100 mg							
	Macrodantin	Cap: 25, 50, 100 mg							
quinupristin/ dalfopristin (B)	Synercid	Vial: 150 mg/350 mg, 180 mg/420 mg							
tigecycline (D)(G)	Tygacil	Vial: 50 mg pwdr for reconstitution							
rifaximin (C)	Xifaxan	<i>Tab</i> : 200, 550 mg							
telavancin (C)	Vibativ	Vial: 250, 750 mg pwdr for reconstitution for IV infusion (preservative-free)							
vancomycin (C)(G)	Vancocin	Cap: 125, 250 mg; Vial: 500 mg, 1 g pwdr for reconstitution for IV infusion							



# APPENDIX CC: POUNDS/KILOGRAMS CONVERSION TABLE

	1 Kg = 2.2 Lbs											
Lb =	= Kg	Lb =	- Kg	Lb =	= Kg							
1	0.45	70	31.75	140	63.5							
5	2.27	75	34.02	145	65.77							
10	4.54	80	36.29	150	68.04							
15	6.8	85	38.56	155	70.31							
20	9.07	90	40.82	160	72.58							
25	11.34	95	43.09	165	74.84							
30	13.61	100	45.36	170	77.11							
35	15.88	105	47.63	175	79.38							
40	18.14	110	49.9	180	81.65							
45	20.41	115	52.16	185	83.92							
50	22.68	120	54.43	190	86.18							
55	24.95	125	56.7	195	88.45							
60	27.22	130	58.91	200	90.72							
65	29.48	135	61.24									

<sup>¶</sup>Adapted from American Pharmacists Association. (2015). Pediatric and neonatal dosage handbook: A universal resource for clinicians treating pediatric and neonatal patients (22nd ed.). Hudson, OH: Lexicomp.



# APPENDIX DD.1: ACYCLOVIR (ZOVIRAX SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)/	Frequenc	cy/Streng	th/5-Day	Volume (	ml)							
20 mg/kg/d ml/dose qid	3.5	4.5	5.5	6.5	8	9	10	11.5	12.5	13.5	14.5	16
mg/5ml	200	200	200	200	200	200	200	200	200	200	200	200
Volume (ml)	70	90	110	130	160	180	200	230	250	270	290	320

**Zovirax Oral Suspension** <2 years: not recommended; >2 years, <40 kg: 20 mg/kg dosed qid x 5 days;  $\geq$ 2 years, >40 kg: 800 mg dosed qid x 5 days; Oral susp: 200 mg/5 ml (banana).

### APPENDIX DD.2: AMANTADINE (SYMMETREL SYRUP)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml	)/Frequen	ncy/Stre	ngth/10-D	ay Volum	e (ml)							
4 mg/kg/d ml/dose bid	3	4	5	6	7	8	9	10	11	12	13	14
mg/5ml	50	50	50	50	50	50	50	50	50	50	50	50
Volume (ml)	30	40	50	60	70	80	90	100	110	120	130	140
8 mg/lb/d ml/dose bid	6	8	10	12								
mg/5ml	50	50	50	50								
Volume (ml)	60	80	100	60								

Symmetrel Suspension (C)(G) Symmetrel <1 year: not recommended; 1-8 years: max 150 mg/day; 9-12 years: 2 tsp bid; >12 years: 100 mg bid or 200 mg once daily; Syr: 50 mg/5 ml (raspberry).

# APPENDIX DD.3: AMOXICILLIN (AMOXIL SUSPENSION, TRIMOX SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	/Frequen	cy/Streng	gth/10-Day	y Volume	(ml)							
20 mg/kg/d ml/ dose tid	2	2.5	3	3.5	4	5	5.5	6	7	7.5	8	9
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125
Volume (ml)	60	75	90	105	120	150	165	180	210	225	240	270
30 mg/kg/d ml/ dose tid	3	3.5	2.5	3	3	3.5	4	4.5	5	5.5	6	6.5
mg/5 ml	125	125	250	250	250	250	250	250	250	250	250	250
Volume (ml)	90	105	75	90	90	105	120	135	150	165	180	195
40 mg/kg/d ml/ dose bid	5	7	4.5	5	6	7	8	9	10	11	12	13
mg/5 ml	125	125	250	250	250	250	250	250	250	250	250	250
Volume (ml)	100	140	90	100	120	140	160	180	200	220	240	250
45 mg/kg/d ml/ dose bid	4	2.5	3	4	4.5	5	6	6.5	7	7.5	8.5	9



# APPENDIX DD.3: AMOXICILLIN (AMOXIL SUSPENSION, TRIMOX SUSPENSION) (continued)

mg/5 ml	200	400	400	400	400	400	400	400	400	400	400	400
Volume (ml)	80	50	60	80	90	100	120	130	140	150	170	180
90 mg/kg/d ml/ dose bid	8	5	6	7	9	10	12	13	14	15	17	18
mg/5 ml	200	400	400	400	400	400	400	400	400	400	400	400
Volume (ml)	160	100	120	140	180	200	240	260	280	300	340	360

Trimox Suspension (B)(G) 125, 250 mg/5 ml (80, 100, 150 ml) (raspberry-strawberry).



#### APPENDIX DD.4: AMOXICILLIN/CLAVULANATE (AUGMENTIN SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	/Frequen	cy/Streng	gth/10-Da	y Volume	(ml)							
40 mg/kg/d ml/ dose bid	5.5	7	4.5	5.5	6.5	7	8	9	10	11	12	13
mg/5 ml	125	125	250	250	250	250	250	250	250	250	250	250
Volume (ml)	110	140	90	110	130	140	160	180	200	220	240	260
45 mg/kg/d ml/dose bid	3	4	5	6	7	8	9	10	11.5	12.5	13.5	14.5
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	60	80	100	120	140	160	180	200	230	250	270	290
45 mg/kg/d ml/dose bid	4	2.5	3	4	4.5	5	6	6.5	7	7.5	8.5	9
mg/5 ml	200	400	400	400	400	400	400	400	400	400	400	400
Volume (ml)	80	50	60	80	90	100	120	130	140	150	170	180
90 mg/kg/d ml/ dose bid	4	5	6.5	8	9	10	11.5	13	14	15.5	16.5	18
mg/5 ml	400	400	400	400	400	400	400	400	400	400	400	400
Volume (ml)	80	100	130	160	180	200	240	260	280	300	340	360

**Augmentin Suspension (B)(G)** 40-45 mg/kg/day divided tid or 90 mg/kg/day divided bid; 125 mg/5 ml (75, 100, 150 ml) (banana); 250 mg/5 ml (75, 100, 150 ml) (orange); 200, 400 mg/5 ml (50, 75, 100 ml) (orange-raspberry) (phenylalanine).

### APPENDIX DD.5: AMOXICILLIN/CLAVULANATE (AUGMENTIN ES 600 SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	)/Frequen	cy/Streng	th/10-Day	Volume	(ml)							
40 mg/kg/d ml/dose bid	1	1.5	2	2	2.5	3	3.5	4	4	4.5	5	5
mg/5 ml	600	600	600	600	600	600	600	600	600	600	600	600
Volume (ml)	30	40	40	40	50	60	70	80	80	90	100	100
45 mg/kg/d ml/dose bid	1.25	1.5	2	2.5	3	3.5	4	4.5	5	5	5.5	6
mg/5 ml	600	600	600	600	600	600	600	600	600	600	600	600
Volume (ml)	25	30	40	50	60	70	80	90	100	100	110	120
90 mg/kg/d ml/dose bid	2.5	3.5	4	5	6	7	8	8.5	9.5	10	11	12
mg/5 ml	600	600	600	600	600	600	600	600	600	600	600	600
Volume (ml)	50	70	80	100	120	140	160	170	190	200	220	240

 $\label{eq:Augmentin ES 600 Suspension (B) <3 months: not recommended; $\geq 3 months, <40 \text{ kg: 90 mg/kg/day in 2 divided doses; } \\ \geq 40 \text{ kg: not recommended; } 600 \text{ mg/5 ml (50, 75, 100, 125, 150, 200 ml) (strawberry cream) (phenylalanine).}$ 

# APPENDIX DD.6: AMPICILLIN (OMNIPEN SUSPENSION, PRINCIPEN SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	/Frequenc	y/Strengt	h/10-Day	Volume (	ml)							
50 mg/kg/d ml/dose q6h	3.5	4.5	3	3.5	4	4.5						
mg/5 ml	125	125	250	250	250	250						
Volume (ml)	140	180	120	140	160	180						
100 mg/kg/d ml/dose q6h	3.5	4.5	6	7	8	9						
mg/5 ml	250	250	250	250	250	250						
Volume (ml)	140	180	240	280	320	360						

Omnipen Suspension, Principen Suspension (B)(G) > 20 kg: 250-500 mg q 6 h 125, 250 mg/5 ml (100, 150, 200 ml) (fruit).

### APPENDIX DD.7: AZITHROMYCIN (ZITHROMAX SUSPENSION, ZMAX SUSPENSION)

Weight								
Pounds	11	22	33	44	55	66	77	88
Kilograms	5	10	15	20	25	30	35	40
Single Dose (ml)/H	requency/Streng	gth/Volume (n	nl)					
3-Day Regimen								
10 mg/kg qd	2.5	5	7.5	5	6	7.5	9	10
mg/5 ml	100	100	100	200	200	200	200	200
Volume (ml)	7.5	15	22.5	15	18	22.5	27	30
5-Day Regimen								
10 mg/kg qd								
Day 1	2.5	5	7.5	5	6	7.5	7.5	10
Days 2-5	1.25	2.5	4	2.5	3	4	4	5
mg/5 ml	100	100	100	200	200	200	200	200
Volume (ml)	10	15	23.5	15	18	23.5	23.5	30

Zithromax ES 600 Suspension (B)(G) 100 mg/5 ml (15 ml), 200 mg/5 ml (15, 22.5, 30 ml) (cherry-vanilla-banana).



# APPENDIX DD.8: CEFACLOR (CECLOR SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	/Frequen	cy/Streng	gth/10-Da	y Volume	(ml)							
20 mg/kg/d ml/dose tid	2	2.5	3	3.5	4	5	5.5	6	7	7.5	8	8.5
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125
Volume (ml)	60	75	90	105	120	150	165	180	210	225	240	255
20 mg/kg/d ml/dose tid	1.5	1.5	2	2.5	3	3	4	4	4.5	5	5.5	6
mg/5 ml	187	187	187	187	187	187	187	187	187	187	187	187
Volume (ml)	45	45	60	75	90	90	105	120	135	150	165	180
40 mg/kg/d ml/dose tid	2	2.5	3	3.5	4	5	5.5	6	6.5	7	8	8.5
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	60	75	90	105	120	150	165	180	195	210	240	255
40 mg/kg/d ml/dose tid	1.5	1.5	2	2.5	3	3	3.5	4	4.5	5	5	5.5
mg/5 ml	375	375	375	375	375	375	375	375	375	375	375	375
Volume (ml)	45	45	60	75	90	90	105	120	135	150	150	165

Ceclor Suspension (B) <6 months: not recommended; 125, 250 mg/5 ml (75, 150 ml) (strawberry); 187, 375 mg/5 ml (50, 100 ml) (strawberry).

# APPENDIX DD.9: CEFADROXIL (DURICEF SUSPENSION)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)														
30 mg/kg/d ml/ dose bid	2	3	3.5	4	5	5.5	6	7	7.5	8	9	9.5		
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250		
Volume (ml)	40	60	75	80	100	110	120	140	150	160	180	190		
30 mg/kg/d ml/ dose qd	2	3	3.5	4	5	5.5	6	7	7.5	8	9	9.5		
mg/5 ml	500	500	500	500	500	500	500	500	500	500	500	500		
Volume (ml)	20	30	35	40	50	55	60	70	75	80	90	95		

Duricef Suspension (B) 250 mg/5 ml (100 ml) (orange-pineapple); 500 mg/5 ml (75, 100 ml) (orange-pineapple).

# APPENDIX DD.10: CEFDINIR (OMNICEF SUSPENSION)

Weight	•													
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)														
7 mg/kg/d ml/dose bid	2	2.5	3	4	4.5	5	6	6.5	7	7.5	8	9		
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125		
Volume (ml)	40	50	60	80	90	100	120	130	140	150	160	180		
14 mg/kg ml/dose bid	4	5	6	8	9	10	12	13	14	15	16	18		
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125		
Volume (ml)	40	50	60	80	90	100	120	130	140	150	160	180		

Omnicef Suspension (B) <6 months: not recommended; 125 mg/5 ml (60, 100 ml) (strawberry).



# APPENDIX DD.11: CEFIXIME (SUPRAX ORAL SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)/	Frequenc	y/Strengt	h/10-Day	Volume (	ml)							
8 mg/kg/d ml/ dose bid	1.3	1.8	2.2	2.5	3.1	3.5	4	4.5	5	5.5	6	6.5
mg/5 ml	100	100	100	100	100	100	100	100	100	100	100	100
8 mg/kg/d ml/dose qd	2.7	3.6	4.5	5.5	6.3	7.2	8.2	9	10	11	12	13
mg/5 ml	100	100	100	100	100	100	100	100	100	100	100	100
Volume (ml)	27	36	45	55	65	70	80	90	100	110	120	130

Supra Oral Suspension (B)(G) <6 months: not recommended; 100 mg/5 ml (50, 75, 100 ml) (strawberry).



### APPENDIX DD.12: CEFPODOXIME PROXETIL

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)														
5 mg/kg/d ml/dose bid	3.5	4.5	5.5	7	8	9	10	11	12.5	13.5	15	16		
mg/5 ml	50	50	50	50	50	50	50	50	50	50	50	50		
Volume (ml)	70	90	110	140	160	180	200	220	250	270	300	320		
5 mg/kg/d ml/dose bid	2	2	3	3.5	4	4.5	5	5.5	6	7	7.5	8		
mg/5 ml	100	100	100	100	100	100	100	100	100	100	100	100		
Volume (ml)	40	40	60	70	80	90	100	110	120	140	150	160		

Vantin Suspension (B) <2 months: not recommended; 50, 100 mg/5 ml (50, 75, 100 ml) (lemon-crème).



### APPENDIX DD.13: CEFPROZIL (CEFZIL SUSPENSION)

Weight															
Pounds	15	20	25	30	35	40	45	50	55	60	65	70			
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8			
Single Dose (ml)	Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)														
7.5 mg/kg/d ml/dose bid	2	3	3.5	4	5	5.5	6	7	7.5	4	4.5	5			
mg/5 ml	125	125	125	125	125	125	125	125	125	250	250	250			
Volume (ml)	40	60	70	80	100	110	120	140	150	80	90	100			
15 mg/kg/d ml/dose bid	2	3	3.5	4	5	5	6	7	7.5	8	9	9.5			
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250			
Volume (ml)	40	60	70	80	100	100	120	140	150	160	180	190			
20 mg/kg/d ml/dose qd	3	3.5	4.5	5.5	6.5	7	8	9	10	11	12	13			
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250			
Volume (ml)	60	70	90	110	130	140	160	180	200	220	240	260			

Cefzil Suspension (B)  $\leq$ 6 months: not recommended; 2-12 years: 7.5-20 mg/kg bid >12 years: 250-500 mg bid or 500 mg once daily; 125, 250 mg/5 ml (50, 75, 100 ml) (bubble gum) (phenylalanine).



# APPENDIX DD.14: CEFTIBUTEN (CEDAX SUSPENSION)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)														
9 mg/kg/d ml/dose qd	3.5	4.5	6	7	8	9	10	11.5	12.5	13.5	15	16		
mg/5 ml	90	90	90	90	90	90	90	90	90	90	90	90		
Volume (ml)	35	45	60	70	80	90	100	115	125	135	150	160		
9 mg/kg/d ml/dose qd	1.75	2.3	3	3.5	4	4.5	5	5.4	6.2	6.6	7.5	8		
mg/5 ml	180	180	180	180	180	180	180	180	180	180	180	180		
Volume (ml)	20	25	30	35	40	45	50	55	60	65	70	80		

Cefzil Suspension (B) 90 mg/5 ml (30, 60, 90, 120 ml) (cherry); 180 mg/5 ml (30, 60, 120 ml) (cherry).



# APPENDIX DD.15: CEFUROXIME AXETIL (CEFTIN SUSPENSION)

Weight													
Pounds	15	20	25	30	35	40	45	50	55	60	65	70	
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8	
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)													
20 mg/kg/d ml/dose bid	2.5	3.5	4.5	3	3	3.5	4	4.5	5	5.5	6	6.5	
mg/5 ml	125	125	125	250	250	250	250	250	250	250	250	250	
Volume (ml)	50	70	90	60	60	70	80	90	100	110	120	130	
30 mg/kg/d ml/dose bid	2	3	3.5	4	5	5.5	6	7	7.5	8	9	9.5	
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250	
Volume (ml)	40	60	70	80	100	110	120	140	150	160	180	190	

Ceftin Suspension (B) 125, 250 mg/5 ml (50, 100 ml) (tutti-frutti).



# APPENDIX DD.16: CEPHALEXIN (KEFLEX SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)/	Frequenc	y/Streng	th/10-Day	Volume (	(ml)							
25 mg/kg/d ml/dose tid	1	1.5	2	2	3	3	3.5	4	4	4.5	5	5
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125
Volume (ml)	30	45	60	60	90	90	105	120	120	135	150	150
25 mg/kg/d ml/dose qid	1	1	1.5	2	2	2.5	2.5	3	3	3.5	4	4
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	40	40	60	80	80	100	100	120	120	140	160	160
50 mg/kg/d ml/dose tid	2	3	4	4.5	5	6	7	7.5	8	9	10	10.5
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	60	90	120	135	150	180	210	225	240	270	300	315
50 mg/kg/d ml/dose qid	2	2	3	3.5	4	4.5	5	6	6	7	7.5	8
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	80	80	120	140	160	180	200	240	240	280	300	320

Keflex Suspension (B)(G) <2 months: not recommended; 125, 250 mg/5 ml (100, 200 ml) (strawberry).



# APPENDIX DD.17: CLARITHROMYCIN (BIAXIN SUSPENSION)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)														
7.5 mg/kg/d ml/dose bid	2	3	3.5	4	5	5.5	6	7	7.5	8	9	10		
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125		
Volume (ml)	40	60	70	80	100	110	120	140	150	160	180	200		
7.5 mg/kg/d ml/dose bid	1	1.5	2	2	2.5	3	3	3.5	4	4	4.5	5		
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250		
Volume (ml)	20	30	40	40	50	60	60	70	80	80	90	100		

Biaxin Suspension (B) < 6 months: not recommended; 125, 250 mg/5 ml (50, 100 ml) (fruit punch).

# APPENDIX DD.18: CLINDAMYCIN (CLEOCIN PEDIATRIC GRANULES)

Weight													
Pounds	15	20	25	30	35	40	45	50	55	60	65	70	
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8	
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)													
8 mg/kg/d ml/dose tid	1	1.5	2	2.5	3	3	3.5	4	4.5	5	5	5.5	
mg/5 ml	75	75	75	75	75	75	75	75	75	75	75	75	
Volume (ml)	30	45	60	75	90	90	105	120	135	150	150	165	
16 mg/kg/d ml/dose tid	2.5	3	4	5	5.5	6.5	7	8	9	9.5	10.5	11	
mg/5 ml	75	75	75	75	75	75	75	75	75	75	75	75	
Volume (ml)	75	90	120	150	165	105	210	240	270	285	315	330	

Cleocin Pediatric Granules (B)(G) 75 mg/5 ml (100 ml) (cherry).



# APPENDIX DD.19: DICLOXACILLIN (DYNAPEN SUSPENSION)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)														
12.5 mg/kg/d ml/dose qid	2	2.5	3	3.5	4	4.5	5	6	6	7	7.5	8		
mg/5 ml	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5		
Volume (ml)	80	100	120	140	160	180	200	240	240	280	300	320		
25 mg/kg/d ml/dose qid	3.5	4.5	6	7	8	9	10	11.5	12.5	13.5	15	16		
mg/5 ml	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5		
Volume (ml)	140	180	240	280	320	360	400	460	500	540	600	640		

Dynapen Suspension (B)(G) 6.25 mg/5 ml (80, 100 ml) (raspberry-strawberry).



#### APPENDIX DD.20: DOXYCYCLINE (VIBRAMYCIN SYRUP/SUSPENSION)

Weight													
Pounds	15	20	25	30	35	40	45	50	55	60	65	70	
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8	
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)													
1 mg/lb/d ml/dose qd	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	
50 mg/5 ml	50	50	50	50	50	50	50	50	50	50	50	50	
Volume (ml)	15	20	25	30	35	40	45	50	55	60	65	70	
1 mg/lb/d ml/dose qd	3	4	5	6	7	8	9	10	11	12	13	14	
25 mg/5 ml	25	25	25	25	25	25	25	25	25	25	25	25	
Volume (ml)	30	40	50	60	70	80	90	100	110	120	130	140	



# APPENDIX DD.21: ERYTHROMYCIN ESTOLATE (ILOSONE SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Dose/Volume (1	0 days) in	ml										
10 mg/kg/d ml/dose bid	3	3.5	4.5	5.5	6	7	8	9	10	5.5	6	6.5
mg/5 ml	125	125	125	125	125	125	125	125	125	250	250	250
Volume (ml)	60	70	90	110	120	140	160	180	200	110	120	130
15 mg/kg/d ml/dose bid	4	5.5	7	8	9.5	5.5	6	7	7.5	8	9	9.5
mg/5 ml	125	125	125	125	125	250	250	250	250	250	250	250
Volume (ml)	80	110	140	160	190	110	120	140	150	160	180	190
20 mg/kg/d ml/dose bid	3	3.5	4.5	5.5	6.5	7	8	9	10	11	12	13
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	60	70	90	110	120	140	160	180	200	220	240	260
25 mg/kg/d ml/dose bid	3.5	4.5	5.5	7	8	9	10	11.5	12.5	13.5	15	16
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	70	90	110	140	160	180	200	230	250	280	300	320

Ilosone Suspension (B)(G) 125, 250 mg/5 ml (100 ml).



# APPENDIX DD.22: *ERYTHROMYCIN ETHYLSUCCINATE* (E.E.S. SUSPENSION, ERY-PED DROPS/SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	/Frequen	cy/Streng	gth/10-Da	y Volume	(ml)							
30 mg/kg/d ml/dose qid	1.5	2	2	2.5	3	3.5	4	4	4.5	5	5.5	6
mg/5 ml	200	200	200	200	200	200	200	200	200	200	200	200
Volume (ml)	60	80	80	100	120	140	160	160	180	200	220	240
30 mg/kg/d ml/dose qid			1	1.5	1.5	2	2	2	2.5	2.5	3	3
mg/5 ml			400	400	400	400	400	400	400	400	400	
Volume (ml)			60	60	80	80	80	100	100	120	120	
50 mg/kg/d ml/dose qid	2	3	3.5	4.5	5	5.5	6.5	7	8	8.5	9	10
mg/5 ml	200	200	200	200	200	200	200	200	200	200	200	200
Volume (ml)	80	120	140	180	200	220	260	280	320	340	360	400

(continued)

# APPENDIX DD.22: ERYTHROMYCIN ETHYLSUCCINATE (E.E.S. SUSPENSION, ERY-PED DROPS/SUSPENSION) (continued)

50 mg/kg/d ml/dose qid	1	1.5	2	2	2.5	3	3	3.5	4	4.5	4.5	5
mg/5 ml	400	400	400	400	400	400	400	400	400	400	400	400
Volume (ml)	40	60	80	80	100	120	140	140	160	180	180	200

Ery-Ped Drops/Suspension (B)(G) 200 mg/5 ml (100, 200 ml) (fruit); 400 mg/5 ml (60, 100, 200 ml) (banana); Oral drops: 200, 400 mg/5 ml (50 ml) (fruit).

E.E.S. Suspension (B)(G) 200 mg/5 ml, 400 mg/5 ml (100 ml) (fruit).

E.E.S. Granules (B)(G) 200 mg/5 ml (100, 200 ml) (cherry).



#### APPENDIX DD.23: ERYTHROMYCIN/SULFAMETHOXAZOLE (ERYZOLE, PEDIAZOLE)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)	Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)													
10 mg/kg/d ml/dose bid	3	4	5	6	6.5	7.5	8.5	9.5	10	11	12	13.5		
mg/5 ml	200	200	200	200	200	200	200	200	200	200	200	200		
Volume (ml)	90	120	150	180	200	225	255	285	300	330	360	400		

 $\label{eq:commended} Eryzole (C)(G) < 2 \ months: not recommended; \\ eryth 200 \ mg/sulf 600 \ mg/5 \ ml \ (100, 150, 200, 250 \ ml). \\ Pediazole (C)(G) < 2 \ months: not recommended; \\ eryth 200 \ mg/sulf 600 \ mg/5 \ ml \ (100, 150, 200 \ ml) \ (strawberry-banana). \\$ 



# APPENDIX DD.24: FLUCONAZOLE (DIFLUCAN SUSPENSION)

Weight															
Pounds	15	20	25	30	35	40	45	50	55	60	65	70			
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8			
Single Dose (ml	Single Dose (ml)/Frequency/Strength/21-Day Volume (ml)														
3 mg/kg/d ml/dose qd	2	3	3.5	4	5	5.5	6	7	7.5	8	9	9.5			
mg/ml	10	10	10	10	10	10	10	10	10	10	10	10			
Volume (ml)	44	66	77	88	110	121	132	154	165	176	198	209			
6 mg/kg/d ml/dose qd	4	5.5	2	2	2.5	3	3	3.5	4	4	4.5	5			
mg/ml	10	10	40	40	40	40	40	40	40	40	40	40			
Volume (ml)	88	121	44	44	55	66	66	77	88	88	99	110			

Diflucan Suspension (B)(G) double dose first day; 10, 40 mg/5 ml (35 ml) (orange).



### APPENDIX DD.25: FURAZOLIDONE (FUROXONE LIQUID)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml	Single Dose (ml)/Frequency/Strength/7-Day Volume (ml)													
5 mg/kg/d ml/dose qid	2.5	3.5	4	5	6	7	8	8.5	9.5	10	11	12		
mg/15 ml	50	50	50	50	50	50	50	50	50	50	50	50		
Vol	100	140	160	200	240	280	320	340	380	400	440	480		

Furoxone Liquid (C)(G) double dose first day; 50 mg/15 ml (35 ml).

# APPENDIX DD.26: GRISEOFULVIN, MICROSIZE (GRIFULVIN V SUSPENSION)

Weight													
Pounds	15	20	25	30	35	40	45	50	55	60	65	70	
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8	
Single Dose (ml)/Frequency/Strength/30-Day Volume (ml)													
5 mg/lb/d ml/dose day	3	4	5	6	7	8	9	10	11	12	13	14	
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125	
Volume (ml)	90	120	150	180	210	240	270	300	330	360	390	420	

Grifulvin V Suspension (C)(G) double dose first day; 125 mg/5 ml (120 ml) (orange) (alcohol 0.02%).



### APPENDIX DD.27: ITRACONAZOLE (SPORANOX SOLUTION)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)	Single Dose (ml)/Frequency/Strength/7-Day Volume (ml)													
5 mg/kg/d ml/dose qd	3.5	4.5	6	7	8	9	10	11.5	12.5	14	15	16		
mg/ml	10	10	10	10	10	10	10	10	10	10	10	10		
Volume (ml)	25	32	42	49	56	63	70	71	88	98	105	112		

Sporanox V Solution (C)(G) double dose first day; 10 mg/ml (150 ml) (cherry-caramel).



### APPENDIX DD.28: LORACARBEF (LORABID SUSPENSION)

Weight													
Pounds	15	20	25	30	35	40	45	50	55	60	65	70	
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8	
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)													
15 mg/kg/d ml/dose bid	2.5	3.5	4	5	3	3.5	4	4	5	5	5.5	6	
mg/5 ml	100	100	100	100	200	200	200	200	200	200	200	200	
Volume (ml)	50	70	80	100	60	70	80	80	100	100	110	120	
30 mg/kg/d ml/dose bid	2.5	3.5	4	5	6	7	8	8.5	9.5	10	11	12	
mg/5 ml	200	200	200	200	200	200	200	200	200	200	200	200	
Volume (ml)	50	70	80	100	120	140	160	170	190	200	220	240	

 $\textbf{Lorabid Suspension (B)} \ 100 \ mg/5 \ ml \ (50, 100 \ ml) \ (strawberry \ bubble \ gum); 200 \ mg/5 \ ml \ (50, 75, 100 \ ml) \ (strawberry \ bubble \ gum).$ 



### APPENDIX DD.29: NITROFURANTOIN (FURADANTIN SUSPENSION)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)	Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)													
5 mg/kg ml/dose qid	1.5	2.5	3	3.5	4	4.5	5	5.5	6	7	7.5	8		
mg/5 ml	25	25	25	25	25	25	25	25	25	25	25	25		
Volume (ml)	60	100	120	140	160	190	200	220	240	280	300	320		

Furadantin Suspension (B)(G) 25 mg/5 ml (60 ml).



# APPENDIX DD.30: *PENICILLIN V POTASSIUM* (PEN-VEE K SOLUTION, VEETIDS SOLUTION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml	)/Frequen	cy/Streng	th/10-Da	y Volume	(ml)							
25 mg/kg/d ml/dose qid	2	2.5	3	3.5	4	4.5	5	5.5	6	7	7.5	8
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125
Volume (ml)	80	90	120	140	160	180	200	220	240	280	300	320
25 mg/kg/d ml/dose qid	1	1	1.5	2	2	2.5	2.5	3	3	3.5	4	4
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	40	40	60	80	80	100	100	120	120	140	160	160
50 mg/kg/d ml/dose qid	2	2.5	3	3.5	4	4.5	5	6	6.5	7	7.5	8
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	80	100	120	140	160	180	200	240	260	280	300	320

Pen-Vee K Solution (B)(G) 125 mg/5 ml (100, 200 ml); 250 mg/5 ml (100, 150, 200 ml). Veetids Solution (B)(G) 125, 250 mg/5 ml (100, 200 ml).



### APPENDIX DD.31: RIMANTADINE (FLUMADINE SYRUP)

Weight														
Pounds	15	20	25	30	35	40	45	50	55	60	65	70		
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8		
Single Dose (ml)	Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)													
5 mg/kg/d ml/dose qd	3.5	4.5	6	7	8	9	10	11.5	12.5	13.5	15	16		
mg/5 ml	50	50	50	50	50	50	50	50	50	50	50	50		
Volume (ml)	35	45	60	70	80	90	100	115	125	135	150	160		

Flumadine Syrup (B) 50 mg/5 ml (2, 8, 16 oz) (raspberry).



# APPENDIX DD.32: TETRACYCLINE (SUMYCIN SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)												
25 mg/kg/d ml/dose qid	1.5	2.5	3	3.5	4	4.5	5	6	6.5	7	7.5	8
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125
Volume (ml)	60	100	120	140	160	180	200	240	260	280	300	320
50 mg/kg/d ml/dose qid	3.5	4.5	6	7	8	9	10	11.5	12.5	13.5	15	16
mg/5 ml	125	125	125	125	125	125	125	125	125	125	125	125
Volume (ml)	140	180	240	280	320	360	400	460	500	540	600	640

Sumycin Suspension (D)(G) <8 years: not recommended; 125 mg/5 ml (100, 200 ml) (fruit) (sulfites).



### APPENDIX DD.33: TRIMETHOPRIM (PRIMSOL SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)											
5 mg/kg/d ml/dose bid	3.5	4.5	6	7	8	9	10	11.5	12.5	13.5	15	16
mg/5 ml	50	50	50	50	50	50	50	50	50	50	50	50
Volume (ml)	70	90	120	140	160	180	200	230	250	270	300	320

Primsol Suspension (C)(G) 50 mg/5 ml (50 mg/5 ml) (bubble gum) (dye-free, alcohol-free).



# APPENDIX DD.34: TRIMETHOPRIM/SULFAMETHOXAZOLE (BACTRIM SUSPENSION, SEPTRA SUSPENSION)

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	Single Dose (ml)/Frequency/Strength/10-Day Volume (ml)											
10 mg/kg/d ml/dose bid	2	2	3	3.5	4	4.5	5	5.5	6	7	7.5	8
mg/5 ml	200	200	200	200	200	200	200	200	200	200	200	200
Volume (ml)	40	40	60	70	80	90	100	110	120	140	150	160
20 mg/kg/d ml/dose bid	4	4	6	7	8	9	10	11	12	14	15	16
mg/5 ml	200	200	200	200	200	200	200	200	200	200	200	200
Volume (ml)	80	80	120	140	160	180	200	220	240	280	300	320

Bactrim Pediatric Suspension, Septra Pediatric Suspension (C)(G) trim 40 mg/sulfa 200 mg/5 ml (100 ml) (cherry) (alcohol 0.3%).



### APPENDIX DD.35: VANCOMYCIN SOLUTION

Weight												
Pounds	15	20	25	30	35	40	45	50	55	60	65	70
Kilograms	6.8	9	11.4	13.6	15.9	18.2	20.5	22.7	25	27.3	29.5	31.8
Single Dose (ml)	/Frequenc	cy/Streng	th/10-Day	y Volume	(ml)							
40 mg/kg/d ml/dose tid	2	2.5	3	3.5	4.5	5	5.5	6	7	7.5	8	8.5
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	60	75	90	105	135	150	165	180	210	225	240	255
40 mg/kg/d ml/dose qid	1.5	2	2.5	3	3	3.5	4	4.5	5	5.5	6	6.5
mg/5 ml	250	250	250	250	250	250	250	250	250	250	250	250
Volume (ml)	60	80	100	120	120	140	160	180	200	220	240	260
40 mg/kg/d ml/dose tid	1	1	1.5	2	2	2.5	3	3	3.5	3.5	4	4
mg/5 ml	500	500	500	500	500	500	500	500	500	500	500	500
Volume (ml)	30	30	45	60	60	75	90	90	105	105	120	120

(continued)

### APPENDIX DD.35: VANCOMYCIN SOLUTION (continued)

40 mg/kg/d ml/dose qid	1	1	1.5	1.5	1.5	2	2	2.5	2.5	3	3	3.5
mg/5 ml	500	500	500	500	500	500	500	500	500	500	500	500
Volume (ml)	40	40	60	60	60	80	80	100	100	120	120	140

Vancomycin Suspension (C)(G) Suspension or solution currently not available in the United States.; however, a Vancomycin oral solution compounding kit is available and a solution may be prepared by pharmacist on request; <12 years: not established; >12 years: usually 40 mg/kg/day in 3-4 divided doses; max 2 gm/day;  $\geq$ 40 kg: 500 mg to 2 gm in 3-4 divided doses; max 2 gm/day.

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### INDEX: BRAND/GENERIC DRUG NAME CROSS-REFERENCE WITH FDA PREGNANCY CATEGORY AND CONTROLLED DRUG CATEGORY

See Appendix A for descriptions of FDA pregnancy categories
See Appendix B for descriptions of controlled drug categories
NE = not established or not rated

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
abacavir, Ziagen	191, 414	С	
A/B Otic, antipyrine/benzocaine/glycerin	290, 294	С	
abatacept, Orencia	369	С	
Abilify, aripiprazole	44, 48, 102, 507	С	
Abreva, docosanol	185	NE	
Abstral, fentanyl citratesublingual tablet	307	С	
acamprosate, Campral	10	С	
Acanya, clindamycin/benzoyl peroxide gel	5, 143	С	
acarbose, Precose	23	В	
Accolate, zafirlukast	27, 372	В	
Accuneb, albuterol	33	С	
Accupril, quinapril	169, 206	D	
Accuretic, quinapril/ hydrochlorothiazide	211	D	
Accutane, isotretinoin, retinoic acid	7	X	
acebutolol, Sectral	201, 503	В	
Aceon, perindopril	205	D	
Acetadote, acetylcysteine	3	В	
acetaminophen, Feverall, Ofirmev, Panadol, Tempra, Tylenol	137	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
acetazolamide, Diamox, Diamox Sequels	151	С	
acetic acid, Domeboro Otic	289	NE	
acetylcysteine, Acetadote	3	В	
acetylsalicylic acid, aspirin, Bayer, Easprin, Durlaza, Ecotrin	137, 518	D	
AcipHex, Aciphex Sprinkle, rabeprazole	147, 319, 455	В	
acitretin, Soriatane	354	X	
Aclovate, alclometasone dipropionate	495	С	
Actemra, tocilizumab	353	С	
Acticlate, doxycycline	4, 5, 18, 19, 50, 52, 56, 64, 73, 74, 76, 134, 153, 158, 187, 249, 252, 317, 333, 349, 377, 382, 388, 438, 442, 530	D	
Actigall, ursodiol	41,73	В	
Actimmune, interferon gamma- 1b	261	С	
Actiq, fentanyl citrate transmucosal unit	307	С	II
Actoplus Met, Actoplus Met XR, pioglitazone/metformin	426	С	
Actonel, risedronate (as sodium)	287, 295	С	
Actos, pioglitazone	405	С	
Acular, Acular PF, ketorolac tromethamine	81, 136	С	
acyclovir, Zovirax	71, 184, 185, 531, 541	С	
Aczone, dapsone	5, 143	С	
Adalat, Adalat CC, nifedipine	15, 163, 208	С	
adalimubab, Humira	94, 356, 359, 367, 436	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
adapalene, Differin	6	С	
Adcirca, tadalafil	362		
Adderall, Adderall XR, dextroamphetamine saccharate/ dextroamphetamine sulfate/ amphetamine aspartate/ amphetamine sulfate	35, 266	С	II
Adempas, riociguat	360, 361	X	
adenovir dipivoxil, Hepsera	176	С	
Adipex-P, phentermine	273	С	IV
Adipra, insulin glulisine (rDNA origin)	318	С	
Adlyxin, lixisenatide	428	С	
Adoxa, doxycycline	4, 5, 18, 19, 50, 52, 56, 64, 73, 74, 76, 134, 153, 158, 187, 249, 252, 317, 333, 349, 377, 382, 388, 438, 442, 530	D	
Adrenaclick, epinephrine	12, 391	С	
Advair HFA, Advair DisKus, fluticasone propionate/salmeterol	32	С	
Advanced Relief Visine, tetrahydrozoline/polyethylene glycol 400/povidone/dextran 70	81	NE	
Advicor, lovastatin/niacin-er	128–129, 219	X	
Advil, ibuprofen	139	B/D	
Adzenya XR-ODT, amphetamine sulfate	34	С	II
AeroBid, Aerobid M, flunisolide	28, 501	С	
Afeditab CR, nifedipine	208	С	
Afluria	232	В	
Aftate, tolnaftate	385, 385	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Aggrenox, dipyridamole/aspirin	519	D	
Akynzeo, netupitant/ palonosetron	271	С	
Alamast, pemirolast	80	С	
alcaftadine, Lastacaft	80	В	
Alaway, ketotifen fumarate	80	С	
albendazole, Albenza	188, 327, 378, 395, 399, 410, 451, 529	С	
Albenza, albendazole	188, 327, 378, 395, 399, 410, 451, 529	С	
albuterol, Accuneb, Proair HFA, Proventil, Proventil HFA, Ventolin, Vospire ER	30, 33	С	
albiglutide, Tanzeum	427	С	
alclometasone, Aclovate	495	С	
Aldactazide, spironolactone/ hydrochlorothiazide	132, 175, 204–205	D	
Aldactone, spironolactone	131, 170, 203, 348	D	
Aldara, imiquimod	8, 450	В	
Aldomet, methyldopa	209	В	
Aldoril, methyldopal hydrochlorothiazide	212	С	
alefacept, Amevive	354	В	
alemtuzumab cenzyme, Lemtrada	260	С	
alendronate (as sodium), Binosto, Fosamax	286, 294	С	
Alesse-21, Alesse-28, ethinyl estradiol/levonorgestrel	476	Х	
Aleve, naproxen	139	В	
Alferon N, interferon alfa-n3 (human leukocyte derived)	450	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
alfuzosin, UroXatral	446	В	
Alinia, nitazoxanide	94-95, 148, 395, 531	В	
aliskiren, Tekturna	210	D	
Alkeran, melphalan	504	D	
Alli, orlistat	272	В	
allopurinol, Aloprim, Zyloprim	155, 447	С	
almotriptan, Axert	160	С	
Alocril, nedocromil	80	В	
Alomide, lodoxamide tromethamine	79, 246	В	
Aloprim, allopurinol	155, 447	С	
alosetron, Lotronex	240	В	
Aloxi, palonosetron	271	В	
Alphagan P, brimonidine	149	В	
alprazolam, Niravam, Xanax, Xanax XR	21, 313	D	IV
Alrex, loteprednol etabonate	79, 136	С	
Alsuma Injectable, sumatriptan	161	С	
Altace, ramipril	169, 206	D	
Altavera, ethinyl estradiol/ levonorgestrel	476	X	
ALTernaGEL, aluminum hydroxide	144	С	
Alteva, risedronate (as sodium)	287, 295	С	
Altoprev, lovastatin	126	X	
aluminum hydroxide, ALTernaGEL, Amphojel	144	С	
Alupent, metaproterenol	30, 33	С	
Alvesco, ciclesonide	28	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
amantadine, Symmetrel	531, 542	С	
Amaryl, glimeperide	423	С	
Ambien, Ambien CR, zolpidem tartrate	141, 234	В	IV
ambrisentan, Letairis	360	X	
ambrosia artemisiifolia 12 amb a, Ragwitek	371	С	
Amerge, naratriptan	161	С	
Americaine, Americaine Otic, benzocaine	290, 294	С	
Amevive, alefacept	354	В	
amikacin, Amikin	532	С	
Amikin, amikacin	532	С	
amiloride, Midamor	170, 203	В	
amiodarone, Cordarone	502	D	
amitriptyline	22, 99, 114, 133, 140, 164, 166, 238, 242, 275, 312, 338, 341, 346, 413	С	
amlodipine, Norvasc	14, 207	С	
Amnesteem, isotretinoin, retinoic acid	7	X	
amoxapine	22, 100, 114, 133, 164, 166, 238, 242, 276, 312, 338, 341, 346, 413	С	
amoxicillin, Amoxil, Moxatag, Trimox	38, 54, 65, 85, 121, 227, 249, 291, 324, 330, 331, 332, 383, 387, 408, 441, 536, 543, 544	В	
Amoxil, amoxicillin	38, 54, 65, 85, 121, 227, 249, 291, 324, 330, 331, 332, 383, 387, 408, 441, 536, 543, 544	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
amphetamine sulfate, Dyanavel, Evekeo, Adzenya XR-ODT	34–35, 266, 272	С	II
Amphojel, aluminum hydroxide	144	С	
amphotericin b	60	С	
ampicillin, Omnipen, Principen	38, 55, 291, 442, 536, 547	В	
Ampyra, dalfampridine	259	С	
Amrix, cyclobenzaprine	140, 262	В	
Amturnide, aliskiren/ amlodipine/hydrochlorozide	215	D	
Anafranil, clomipramine	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 338, 341, 346, 413	С	
anakinra, Kinert	368	В	
Ana-Kit, epinephrine/ chlorpheniramine	12, 392	С	
Anaprox, Anaprox DS, naproxen	139	С	
Anaspaz, hyoscyamine	91, 230, 236, 241, 444	С	
anastrozole, Arimidex	504	D	
Ancef, cefazolin	38, 532	В	
Androderm, testosterone	398	X	III
AndroGel, testosterone	397	X	III
Android, methyltestosterone	396	X	III
Ansaid, flurbiprofen	491	В	
Antabuse, disulfiram	10	X	
Antara, fenofibrate	127, 218	С	
Anthrasil, bacillus athracis immune globulin intravenous (human)	18	NE	
Antivert, meclizine	246, 256, 259, 269, 448	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Anturane, sulfinpyrazone	155	С	
Anusol HC, hydrocortisone	174, 435, 495	С	
Anzemet, dolasetron	270	В	
Apidra, insulin glulisine (rDNA origin)	418	В	
apixaban, Eliquis	516	С	
Aplenzin, bupropion hydrobromide	100, 406	С	
apraclonidine, Iopidine	149	С	
apremilast, Otezla	358	С	
aprepitant, Emend	270	В	
<b>Apri,</b> ethinyl estradiol/desogestrel	476	X	
Apriso, mesalamine	436	В	
Aptivus, tipranavir	195, 511	С	
AquaMEPHYTON, phytonadione, vitamin k	515	С	
Aralen, chloroquine	254, 530	С	
Aranelle, ethinyl estradiol/ norethindrone	477	X	
Aranesp, darbepoetin alpha	13	С	
Arava, leflunomide	366	X	
ardeparin, Normiflo	496	С	
Arimidex, anastrozole	504	D	
aripiprazole, Abilify	44, 48, 102, 507	С	
Aristocort, triamcinolone	499, 500	С	
Aristocort Forte, triamcinolone diacetate	499, 500	С	
Arixtra, fondaparinux sodium	517	В	
armodafinil, Nuvigil	266, 390	С	IV

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Armour Thyroid, liothyronine/ levothyroxine	226	A	
Aromasin, exemestane	504	D	
Arranon, nelarabine	505	D	
Arthrotec, diclofenac/misoprostol	491	X	
Arymo ER, morphine sulfate	302	С	II
Asacol, Asacol HD, mesalamine	92, 436	В	
asenapine, Saphris	44, 48, 507	С	
asfotase alfa, Strensiq	224	NE	
Ashlyna, ethinyl estradiol/ levonorgestrel	485	X	
Asthmanefrin, racepinephfine	31	С	
Asmanex Twisthaler, mometasone furoate	29, 501	С	
Aspirin Regimen Bayer, aspirin	137	D	
Astelin, azelastine	374, 375	С	
Astepro Nasal Spray, azelastine	374	С	
Atacand, candesartan	206	D	
Atacand HCT, candesartan/ hydrochlorothiazide	211	D	
Atarax, hydroxyzine	20, 70, 103, 108, 110, 256, 313, 371, 376, 525	С	
atazanavir, Reyataz	193, 513	В	
atenolol, Tenormin	16, 162, 201, 504	D	
Ativan, lorazepam	21, 314, 392	D	IV
atorvastatin, Lipitor	126, 218	X	
atovaquone, Mepron	253, 328, 530	С	
Atralin, tretinoin	6	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Atripla, efavirenz/emtricitabine/ tenofovir disoproxil fumarate	193, 196, 511	D	
Atropen, atropine	272	NE	
atropine, Atropen	272	NE	
Atrovent, ipratropium bromide	27, 374–376	В	
attapulgite, Donnagel	117, 119	NE	
Aubagio, teriflunomide	260	X	
Augmentin, Augmentin ES-600, Augmentin XR, amoxicillin/ clavulanate potassium (clavulanic acid)	50-52, 55, 65, 96, 121, 227, 250, 254, 290, 291, 324, 330-333, 384, 439, 441, 452, 536, 545, 546	В	
auranofin, Ridaura	366	С	
Auvi-Q, epinephrine	12, 391	С	
Avage, tazarotene	6, 143, 200, 355	х	
Avalide, irbesartan/ hydrochlorothiazide	211	D	
avanafil, Stendra	361	В	
Avandamet, rosiglitazone/ metformin	426	С	
Avandaryl, rosiglitazone/ glimeperide	427	С	
Avandia, rosiglitazone	425, 426	С	
Avapro, irbesartan	206	D	
Aveeno, oatmeal colloid	104–106, 108	A	
Avelox, moxifloxacin	57, 67, 328, 334, 385, 389, 439, 535	С	
Aviane, ethinyl estradiol/ levonorgestrel	477	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Avita, tretinoin	7, 143, 200	С	
Avonex, interferon beta-1a	260	С	
Avycaz, ceftazidime/avibactam	533	В	
Axert, almotriptan	160	С	
Axid, Axid AR, nizatidine	146, 318	С	
Axiron, testosterone	397	X	III
Aygestin, norethindrone	12	X	
Azasan, azathioprine	366	D	
AzaSite, azithromycin	81	В	
azathioprine, Azasan, Imuran	366	D	
azelaic acid, Azelex, Finacea, Optivar	3, 4	В	
azelastine, Astelin, Astepro Nasal Spray	374, 375	С	
Azelex, azelaic acid	3, 4	В	
azilsartan medoxomil, Edarbi	206	D	
azithromycin, AzaSite, Zithromax, Zithromax Tri Pak, max	38, 55, 64, 65, 69, 71, 72, 75, 76, 81, 86, 87, 152, 153, 158, 227, 251, 291, 323–325, 329–331, 333, 335–336, 380, 382, 387, 408, 433, 438, 452, 535, 548	В	
Azmacort, triamcinolone acetonide	29	С	
AZO, AZO Standard Extra Strength, AZO Urinary Pain Relief/AZO Urinary Pain Relief Maximum Strength, phenazopyridine	236, 237, 362, 439, 445	В	
Azopt, brinzolamide	149	С	
Azor, amlodipine/olmesartan medoxomil	215	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
aztreonam, Azactam, Cayston	538	В	
Azulfidine, Azulfidine EN-Tabs, sulfasalazine	93, 367, 436	B/D	
bacillus athracis immune globulin intravenous (human), Anthrasil	18	NE	
bacitracin, Bacitracin Ophthalmic	81	С	
Bacitracin Ophthalmic, bacitracin	81	С	
baclofen, Lioresal	261, 412	С	
Bactrim, Bactrim DS, sulfamethoxazole/trimethoprim	53, 57, 65, 120, 122, 158, 290, 293, 323, 329, 335, 350, 351, 363, 379, 383, 385, 434, 441, 444, 537, 576	С	
Bactroban, mupirocin	226, 386, 452	В	
Balacet, propoxyphene napsilate/acetaminophen	304-305	С	IV
balsalazide, Colazal	435	В	
Balziva, ethinyl estradiol/ norethindrone	477	X	
Banzel, rufinamide	510	С	
Baraclude, entecavir	176	С	
Basaglar, insulin glargine (recombinant)	419	С	
Bayer, aspirin	137	D	
becaplermin, Regranex Gel	434, 435	С	
beclomethasone dipropionate, Beconase AQ, QNASL, Qvar	372, 501	С	
Beconase AQ, beclomethasone dipropionate	372	С	
bedaquiline, Sirturo	414	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Belbuca, buprenorphine	279	С	III
Belviq, lorcaserin	274	X	
Benadryl, diphenhydramine	10, 20, 70, 107, 108, 110, 256	В	
benazepril, Lotensin	205	D	
Benicar, olmesartan	206	D	
Benicar HCT, olmesartan medoxomil/hydrochlorothiazide	211	D	
Benoquin, monobenzone	200	С	
Bentyl, dicyclomine	90-91, 230, 240-241	В	
Benzac-W, Benzac Wash, benzoyl peroxide	5	С	
BenzaClin, clindamycin/benzoyl peroxide	5, 143	С	
Benzamycin, benzoyl peroxidel erythromycin	5	С	
Benzamycin Topical Gel, erythromycin/benzoyl peroxide	5	С	
benznidazole	69	NR	
benzocaine, Americaine, Americaine Otic, Anbesol, Benzotic, Hurricaine, Orajel, Solarcaine	290, 294	С	
benzonatate, Tessalon Caps, Tessalon Perles	528	С	
Benzotic, benzocaine	290, 294	С	
benzoyl peroxide, Benzac-W, Benzac Wash, Clearasil, Desquam-X, Triaz, ZoDerm	5	С	
benzphetamine, Didrex	272	X	III
Bepreve, bepotastine	80	С	
bepotastine, Bepreve	80	С	
besifloxacin, Besivance	81	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Besivance, besifloxacin	81	С	
Betagan levobunolol	150	С	
betamethasone dipropionate, Diprolene, Diprolene AF, Sernivo Spray	496, 497	С	
betamethasone valerate, Luxiq	111, 495	С	
Betapace, Betapace-AF, sotalol	502	С	
Betaseron, interferon beta-1b	261	С	
betaxolol, Betoptic, Betoptic S, Kerlone	150, 201	С	
bethanechol, Urecholine	231, 439	С	
Betimol, timolol	150	С	
Betoptic, Betoptic S, betaxolol	150	С	
Bexsero, meningococcal group b vaccine [recombinant, absorbed]	256	В	
Beyaz, ethinyl estradiol/ drospirenone/levomefolate	477	X	
Biaxin, Biaxin XL, clarithromycin	39, 56, 66, 228, 249, 292, 323, 326, 331, 332, 333, 335, 336, 380, 385, 388, 409, 453, 535, 558	С	
bicalutamide, Casodex	505	X	
Bicillin, Bicillin L-A, penicillin g benzathine	228, 326, 395, 537	В	
Bicillin C-R, penicillin g benzathine/penicillin g procaine	229, 326, 381, 395, 537	В	
BiDil, isosorbide dinitrate/ hydralazine	172	С	
bimatoprost, Latisse, Lumigan	151	С	
Binosto, alendronate (as sodium)	286, 294	С	
Bion Tears, dextran 70/ hypromellose	123	NE	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
bisacodyl, Dulcolax	89, 132	В	
bismuth subsalicylate, Devrom, Pepto-Bismol	117	D	
bisoprolol, Zebeta	201	С	
Bleph-10, sulfacetamide	53, 82-83, 393	С	
Blephamide Liquifilm, Blephamide S.O.P., sulfacetamide/prednisolone	84	С	
Blocadren, timolol	163, 202	С	
boceprevir, Victrelis	180	В	
Bonine, meclizine	246, 256, 259, 269, 448	В	
Boniva, ibandronate (as monosodium monohydrate)	286, 295	С	
Bontril, phendimetrazine	273	С	III
bortezomib, Velcade	506	D	
Brevicon-21, Brevicon-28, ethinyl estradiol/norethindrone	477	X	
brexpiprazole, Rexulti	102, 507	С	
brimonidine, Alphagan	149	В	
brinzolamide, Azopt	149	С	
brivaracetam, Briviact	509	С	
Briviact, brivaracetam	509	С	
Bromfed DM, brompheniramine/dextromethorphan	525	С	
bromocriptine, Cycloset, Parlodel	432	В	
budesonide, Entocort EC, Pulmicort Respules, Pulmicort Flexhaler, Rhinocort, Rhinocort Aqua, Uceris	28, 93, 373, 435, 501	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Bufferin, aspirin/magnesium carbonate/magnesium oxide bumetanide	138	D	
Bunavail, buprenorphine/ naloxone	280	С	III
bupivacaine liposome, Exparel	489	С	
Buprenex, buprenorphine	446	С	III
buprenorphine, Belbuca, Buprenex, Butrans, Probuphine, Subutex	279	С	III
bupropion hydrobromide, Aplenzin	100, 406	С	
bupropion hydrochloride, Forfivo XL, Wellbutrin, Wellbutrin SR, Wellbutrin XL, Zyban	37, 100, 406–407, 507	С	
BuSpar, buspirone	20, 313	В	
buspirone, BuSpar	20, 313	В	
butenafine, Mentax	60, 116, 400, 402, 403, 405	В	
butoconazole, Femstat-3, Gynazole-1	62	С	
butorphanol, Stadol, Stadol NS	167, 308	С	IV
Butrans, buprenorphine	279, 306	С	
Bydureon, exenatide	427	С	
Byetta, exenatide	427	С	
Bystolic, nebivolol	202	С	
Byvalson, nebivolol	213	X	
cabergoline, Dostinex	201	В	
Cafergot, ergotamine/caffeine	160	X	
Caduet, amlodipine/atorvastatin	129, 216	X	
Calan, Calan SR, verapamil	15, 163, 208, 502	С	
calcipotriene, Dovonex	353	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
calcitonin-salmon, Fortical, Miacalcin Injectable, Miacalcin Nasal Spray	219–220, 285	С	
calcitriol, Rocaltrol, Vectical	220–221, 223, 285	С	
calcium acetate, PhosLo	200	С	
Calcium Disodium Versenate, edetate calcium disodium (EDTA)	247	В	
calcium polycarbophil, Fibercon, Konsyl	87, 117	С	
Caldolor, ibuprofen	296	B/D	
Camila, norethindrone	485	X	
Campral, acamprosate	10	С	
Camrese, Camrese Lo, ethinyl estradiol/levonorgestrel	477	X	
Canasa, mesalamine	92, 436	В	
candesartan, Atacand	206	D	
capecitabine, Xeloda	506	D	
Capex Shampoo, fluocinolone acetonide	495	С	
Capitrol, chloroxine	110	С	
Capoten, captopril	168, 205	D	
Capozide, captopril/ hydrochlorothiazide	210	D	
capsaicin, Capzasin-HP, Capzasin-P, Double Cap, Qutenza, Zostrix, Zostrix HP	105, 113, 156, 243, 244, 263–265, 283, 297–298, 320, 321, 339, 352, 357, 364, 489, 490	В	
captopril, Capoten	168, 205	D	
Capzasin-P, capsaicin	105, 113, 156, 243, 244, 263, 265, 283, 297, 320, 321, 339, 352, 357, 364,	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Carac, fluorouracil	8	X	
Carafate, sucralfate	319	В	
carbamazepine, Carbatrol, Carnexiv, Equetro, Tegretol, Tegretol XR	42-43, 47, 412, 509	D	
carbamide peroxide, Debrox, Gly-Oxide	25, 68	A	
Carbatrol, carbamazepine	42-43, 47, 412, 509	D	
carbinoxamine maleate, Palgic	526	С	
Cardene, Cardene SR, nicardipine	15, 207	С	
Cardizem, Cardizem CD, Cardizem LA, diltiazem	14–15, 163, 206–207	С	
Cardura, Cardura XL, doxazosin	209	С	
cariprazine, Vraylar	44, 49, 507	NE	
carisoprodol, Soma	262, 263	С	
Carmol 40, urea cream	386	С	
Carnexiv, carbamazepine	42, 47	D	
carteolol, Ocupress	150	С	
Cartia XT, diltiazem	15, 207	С	
carvedilol, Coreg	169, 202	С	
Casodex, bicalutamide	505	X	
Cataflam, diclofenac potassium	129, 491	С	
Catapres, Catapres-TTS, clonidine	37, 209, 344	С	
Cayston, aztreonam	538	В	
Cedax, ceftibuten	56, 292, 325, 384, 409, 533, 555	В	
cefaclor, Cefaclor Extended Release	55, 66, 227, 254–255, 290, 292, 325, 330, 332, 333, 384, 387, 408–409, 442, 452, 532, 549	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Cefaclor Extended Release, cefaclor	55, 66, 227, 254–255, 290, 292, 325, 330, 332, 333, 384, 387, 408–409, 442, 452, 532, 549	В	
cefadroxil, Duricef, Ultracef	55, 227, 325, 380, 387, 409, 442, 452, 532, 550	В	
cefazolin, Ancef, Kefzol	38, 532	В	
cefdinir, Omnicef	55, 292, 325, 332, 333, 384, 387, 409, 452, 534, 551	В	
cefditoren pivoxil, Spectracef	55, 325, 387, 409, 534	С	
cefepime, Maxipime	534	В	
cefixime, Suprax for Oral Suspension	56, 292, 325, 382, 384, 409, 433, 442, 534, 552	В	
Cefizox, ceftizoxime	154	В	
Cefobid, cefoperazone	533	В	
cefoperazone, Cefobid	533	В	
Cefotan, cefotetan	153, 533	В	
cefotaxime, Claforan	153, 433, 533	В	
cefotetan, Cefotan	153, 533	В	
cefoxitin, Mefoxin	52, 154, 317, 533	В	
cefpodoxime proxetil, Vantin	56, 66, 154, 228, 292, 325, 332, 333, 384, 387, 409, 442, 453, 533, 553	В	
cefprozil, Cefzil	56, 66, 228, 292, 325, 384, 387, 409, 453, 533, 554	В	
ceftaroline fosamil, Teflaro	66, 228, 333	В	
ceftazidime, Fortaz, Tazicef, Tazidime	533	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
ceftibuten, Cedax	56, 292, 325, 384, 409, 533, 555	В	
Ceftin, cefuroxime axetil	50, 56, 66, 154, 228, 249, 292, 325, 385, 388, 442, 533, 556	В	
ceftizoxime, Cefizox	154	В	
ceftriaxone, Rocephin	38-39, 56, 66, 69, 86, 134, 153, 255, 278, 292, 317, 324, 331, 332, 333, 349, 362, 382, 388, 433, 534	В	
cefuroxime axetil, Ceftin	50, 56, 66, 154, 228, 249, 292, 325, 385, 388, 442, 533, 556	В	
Cefzil, cefprozil	56, 66, 228, 292, 325, 384, 387, 409, 453, 533, 554	В	
Celebrex, celecoxib	130, 157, 264, 284, 358, 365, 490	С	
celecoxib, Celebrex	130, 157, 264, 284, 358, 365, 490	С	
Celestone Soluspan, betamethasone sodium phosphate/betamethasone acetate	498, 499	С	
Celexa, citalopram	23, 98, 311, 343	С	
Celontin Kapseals, methsuximide	510	С	
Centany, mupirocin	226, 386, 452	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
cephalexin, Keflex	39, 56, 66, 228, 251, 255, 292, 315, 325, 362, 380, 388, 409, 442, 453, 532, 557	В	
certolizumab, Cimzia	94, 367	В	
Cerumenex, triethanolamine	68	A	
Cesamet, nabilone	268	С	
Cetamide, sulfacetamide	83	С	
cetirizine, Zyrtec, Zyrtec Chewable Tablets	80, 102, 106, 109, 370, 375, 447	В	
cevimeline, Evoxac	385	С	
Chantix, varenicline	406	С	
Chemet, succimer	239, 247	С	
Children's Nasal Crom, cromolyn sodium	374	В	
chlorambucil, Leukeran	505	D	
Children's Xyzal Allergy 24HR, levocetirizine	103, 107, 109, 371, 379, 448	В	
chlordiazepoxide, Librium	9, 21, 314	D	IV
chlorhexidine gluconate, Peridex, PerioGard	148	В	
chloroquine, Aralen	254, 530	С	
chlorothiazide, Diuril	130, 170, 203, 446	В	
chloroxine, Capitrol	110	С	
chlorpromazine, Thorazine	49, 186, 269, 507	С	
chlorpropamide, Diabinese	423	С	
chlorthalidone, Thalitone	130, 203	В	
chlorzoxazone, Parafon Forte	262	С	
cholestyramine, Questran, Questran Light	119, 128	С	
chorionic gonadotropin, Pregnyl	11	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
ciclesonide, Alvesco, Omnaris, Zetonna	28, 373	С	
ciclopirox, Loprox	60, 110, 400, 402, 403, 405	В	
ciclopirox topical solution, Penlac Nail Laquer	277	NE	
cidofovir, Vistide	364, 514	С	
Ciloxan, ciprofloxacin ophthalmic	82	С	
cimetidine, Tagamet, Tagamet HB	146, 317	В	
Cimzia, certolizumab	94, 367	В	
Cipro, Cipro XR, ciprofloxacin	18, 19, 52–53, 69, 75, 76, 96, 120, 122, 158, 335, 350, 362, 379, 383, 385, 433, 440, 442, 534	С	
Ciprodex, ciprofloxacin/ dexamethasone	289, 293	С	
ciprofloxacin, Cipro, Cipro XR, ProQuin XR	18, 19, 52–53, 69, 75, 76, 96, 120, 122, 158, 335, 350, 362, 379, 383, 385, 433, 440, 442, 534 4	С	
ciprofloxacin ophthalmic, Ciloxan	82	С	
Cipro HC Otic, ciprofloxacin/ hydrocortisone	289, 293	С	
citalopram, Celexa	23, 98, 311, 343	С	
Citranatal 90 DHA, Citranatal Assure, Citranatal B-Calm, Ctranatal DHA, Citranatal Harmony, Citranatal Rx, prenatal vitamins	520–521	A	
Citrate of Magnesia, magnesium citrate	88	В	
Citrucel, methylcellulose	87	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Claforan, cefotaxime	153, 433, 533	В	
Clarinex, Clarinex RediTab, Clarinex Syrup, desloratadine	102, 106–107, 109, 370, 375, 447, 525	С	
clarithromycin, Biaxin, Biaxin XL	39, 56, 66, 228, 249, 292, 323, 326, 331, 332, 333, 335, 336, 380, 385, 388, 409, 453, 535, 558	С	
Clearasil, benzoyl peroxide	5	С	
Clenia, sulfacetamide/sulfur	4	С	
Cleocin, Cleocin T, Cleocin Vaginal Cream, Cleocin Vaginal Ovules, clindamycin	5, 39, 40, 51, 97, 143, 187, 255, 315, 380, 538, 559	В	
clevidipine butyrate, Cleviprex	207	С	
Cleviprex, clevidipine butyrate	207	С	
clindamycin, Clindets, Cleocin, Cleocin T, Cleocin Vaginal Cream, Cleocin Vaginal Ovules, Evoclin Foam	5, 39, 40, 51, 97, 143, 187, 255, 315, 380, 538, 559	В	
Clindets, clindamycin	143	В	
Clinoril, sulindac	493	D	
clobazam, Onfi	509	С	IV
clobetasol propionate, Clobex Shampoo, Clobex Spray, Cormax, Olux, Temovate	497	С	
Clobex Shampoo, Clobex Spray, clobetasol propionate	497	С	
clomipramine, Anafranil	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 338, 341, 346, 413	С	
clonazepam, Klonopin	21, 314, 412, 509	С	IV
clonidine, Catapres, Catapres- TTS, Kapvay, Nexiclon, Nexi- clon XR	37, 209, 344	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
clopidagrel, Plavix	519	В	
clorazepate, Tranxene	9, 21–22, 314	С	IV
Clorpres, clonidinel chlorthalidone	216	С	
clotrimazole, Gyne-Lotrimin, Gyne-Lotrimin-3, Lotrimin, Mycelex G, Mycelex G Vaginal, Mycelex Troche	59, 60, 62, 116, 400, 402, 403, 405, 530	В	
clozapine, Clozaril, Fazaclo, Versacloz	507	В	
Clozaril, clozapine	507	В	
coal tar, Scytera, T/Gel	110, 327, 355	С	
codeine sulfate	298	С	III
Colace, Colace Enema, docusate	89	С	
Colazal, balsalazide	435	В	
colchicine	155	С	
colchicine, Colchicine, Colcrys, Novocolchine	155	С	
Colcrys, colchicine	155	С	
colesevelam, WelChol	128, 432	В	
Colestid, colestipol	128	С	
colestipol, Colestid	128	С	
colistimethate, Coly-Mycin M	289, 293	С	
Coly-Mycin M, colistimethate	289, 293	С	
Coly-Mycin S Otic, colistin/ neomycin/hydrocortisone/ thonzonium	289, 293	С	
Combigan, brimonidine tartrate/ timolol	150	С	
Combipres, clonidine/ chlorthalidone/polysorbate/acetic acid/sodium	212	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Combivent MDI, Combivent Respimat, ipratropium/albuterol	31	С	
Combivir, lamivudine/ zidovudine	196, 511	С	
Combunox, oxycodone/ ibuprofen	304	C/D	II
Compazine, prochlorperazine	23, 259, 269, 315, 508	С	
Complera, emtricitabine/tenofovir disoproxil fumarate/rilpivirine	193, 196, 511	В	
Concerta, methylphenidate	36, 267	С	
Condylox, podofilox	450	С	
Copaxone, glatiramer acetate	260	В	
Copegus, ribavirin	177-178	X	
Cordan, flurandrenolide	496–498	С	
Cordarone, amiodarone	502	D	
Cordran, Cordran SP, flurandrenolide	496	С	
Coreg, carvedilol	169, 202	С	
Corgard, nadolol	16, 163, 202	С	
Cormax, clobetasol propionate	497	С	
Cortane-B Otic, hydrocortisone/ chloroxylenol/pramoxine	289	С	
Cortef, hydrocortisone	498, 500	С	
Cortenema, hydrocortisone	435	С	
Cortifoam, hydrocortisone	435	С	
Cortisporin Cream, Cortisporin Ophthalmic, Cortisporin Otic, polymyxin b/ neomycin/hydrocortisone	84, 289, 293	С	
Cortisporin Ointment, polymyxin b/bacitracin zinc/ neomycin/hydrocortisone	84	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Corzide, nadolol/ bendroflumethiazide	213	С	
Cosopt, dorzolamide/timolol	151	С	
Cotazym, Cotazym S, pancrelipase	309	С	
Coumadin, warfarin	490, 515	D	
Covera-HS, verapamil	15, 163, 208	С	
Cozaar, losartan	206	D	
Creon, pancrelipase	309	С	
Crestor, rosuvastatin	126, 219	X	
crisaborole, Eucrisa	104		
Crixivan, indinavir	194, 511	С	
crofelemer, Fulyzaq, Mytesi	117, 119	С	
Crolom, cromolyn sodium	79, 246	В	
cromolyn sodium, Children's NasalCrom, Crolom, Intal, Nasal Crom	374	В	
crotamiton, Eurax	380	С	
Cryselle, ethinyl estradiol/ norgestrel	477	X	
Cubicin, daptomycin	539	В	
Cuprimine, penicillamine	367, 446	D	
Cutivate, fluticasone propionate	496	С	
cyanocobalamin, vitamin b-12, Nascobal Gel	14	С	
Cyclessa, ethinyl estradiol/ desogestrel	477	X	
cyclobenzaprine, Amrix, Fexmid, Flexeril	140, 262	В	
cyclophosphamide, Cytoxan	505	D	
Cycloset, bromocriptine	432	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
cyclosporine, Neoral, Restasis	354, 366	С	
Cylert, pemoline	37, 267	В	
Cymbalta, duloxetine	24, 99, 139, 312, 320, 345	С	
cyproheptadine	17	В	
Cytomel, liothyronine	225	A	
Cytotec, misoprostol	319, 490	X	
Cytovene, ganciclovir	511	С	
Cytoxan, cyclophosphamide	505	D	
dabigatran etexilate mesylate, Pradaxa	518	С	
daclatasvir, Daklinza	178	X	
Daklinza, daclatasvir	178	X	
dalfampridine, Ampyra	259	С	
Dalmane, flurazepam	140, 235	X	IV
dalteparin, Fragmin	516	С	
Dalvance, dalbavancin	66, 539	С	
dalbavancin, Dalvance	66, 539	С	
Dantrium, dantrolene	262	С	
dantrolene, Dantrium	262	С	
dapagliflozin <b>, Farxiga</b>	429	С	
dapsone, Aczone	5, 143	С	
daptomycin, Cubicin	539	В	
darbepoetin alpha, Aranesp	13	С	
darifenacin, Enablex	230	С	
darunavir, Prezista	194, 513	В	
Daytrana, methylphenidate	37	С	II
Daypro, oxaprozin	493, 494	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
DDAVP Nasal Spray, desmopressin	133, 229	В	
Debrox, carbamide peroxide	68	A	
Decadron, Decadron LA, dexamethasone	498, 499	С	
deferasirox, Exjade	239	В	
delavirdine mesylate, Rescriptor	192, 513	С	
Deltasone, prednisone	41, 499	С	
Delzicol, mesalamine	92, 436	В	
Demadex, torsemide	131, 171, 204	В	
Demerol, meperidine	301, 446	D	II
Demulen 1/35-21, Demulen 1/50-21, Demulen 1/35-28, Demulen 1/50-28, ethinyl estradiol/ethynodiol diacetate	477	X	
Denavir, penciclovir	185	В	
denosumab, Xgeva, Prolia	288	С	
Depakene, valproic acid	412	D	
Depakote, divalproex	42, 46, 165, 412, 509	D	
Depen, penicillamine	367, 447	D	
Depo-Medrol, methylprednisolone	500	С	
Depo-Provera, Depo-SubQ, medroxyprogesterone	258, 486, 500	X	
Derma-Smoothe/FS, fluocinolone acetonide	105, 111, 352, 454, 495	С	
Dermatop, prednicarbate	496	С	
Descovy, emtricitabine/tenovir alafenamide	196, 511	NE	
desloratadine, Clarinex, Clarinex RediTab, Clarinex Syrup	102, 106–107, 109, 370, 375, 447, 525	С	
Desenex, undecylenic acid	403	NE	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Desferal, deferoxaminemesylate	247	С	
deferoxaminemesylate, Desferal	247	С	
desipramine, Norpramin	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 338, 341, 346, 413	С	
desirudin, Iprivask	518	С	
desmopressin, DDAVP Nasal Spray, DDAVP Rhinal Tube Stimate	133, 229	В	
Desogen-28, ethinyl estradiol/ desogestrel diacetate	477	X	
Desonate, desonide	103, 495	С	
desonide, Desonate, DesOwen, Tridesilon, Verdeso	103, 495	С	
DesOwen, desonide	495	С	
desoximetasone, Topicort	495, 497	С	
Desoxyn, methamphetamine	266, 273	С	II
Desquam-X, benzoyl peroxide	5, 143	С	
desvenlafaxine, Pristiq	24, 99, 312, 345	С	
Detrol, Detrol LA, tolterodine	230, 237	С	
<b>Devrom,</b> bismuth subgallate powder	136	В	
dexamethasone, Decadron, Decadron LA, Maxidex	78, 498, 499	С	
deflazacort, Emflaza	123	В	
<b>Dexedrine</b> , dextroamphetamine sulfate	35, 266	С	II
Dexilant, dexlansoprazole	147, 318, 454	В	
dexlansoprazole, Dexilant	147, 318, 454	В	
dexmethylphenidate, Focalin, Focalin XR	35, 266	С	II

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
dextroamphetamine sulfate, Dexedrine, Dextrostat	35, 266	С	II
dextromethasone phosphate, Maxidex Ophthalmic	78	С	
<b>Dextrostat,</b> dextroamphetamine sulfate	35, 266	С	
DHE 45, dihydroergotamine	160	X	
DiaBeta, glyburide	423	В	
Diabinese, chlorpropamide	423	С	
Dialose, docusate calcium	88	С	
Diamox, Diamox Sequels, acetazolamide	151	С	
Diastat, Diastat AcuDial, diazepam	9, 22, 255, 262, 315, 392, 509	D	IV
diazepam, Diastat, Diastat AcuDial, Valium	9, 22, 255, 262, 315, 392, 509	D	IV
dibucaine, Nupercainal	174	С	
Diclegis, doxylamine succinate/ pyridoxine	347	A	
diclofenac, Zorvolex	264, 283	С	
diclofenac sodium, Pennsaid, Solaraze, Voltaren, Voltaren Gel, Voltaren, Ophthalmic Solution, Voltaren-XR	8, 264, 265, 283, 297, 357, 358, 365, 491	С	
diclofenac epolamine, Flector Patch	264, 265, 297, 321, 339, 489	С	
diclofenac potassium, Cataflam, Zipsor	491	С	
dicyclomine, Bentyl	91, 230, 241	В	
didanosine, Videx, Videx EC	191, 514	В	
Didrex, benzphetamine	272	X	III
Differin, adapalene	6	С	
diflorasone, Psorcon, Psorcon E	497	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Diflucan, fluconazole	59, 63, 530, 566	С	
diflunisal, Dolobid	491	С	
difluprednate, Durezol	136, 296	С	
Digibind, digoxin immune fab	120	С	
digoxin, Lanoxicaps, Lanoxin	172	С	
dihydrocodeine, Synalgos-DC	299	D	III
dihydroergotamine, DHE 45, Migranal	160	X	
dihydroxyaluminum sodium carbonate, Rolaids	145	NE	
diiodohydroxyquin, iodoquinol, Yodoxin	529	С	
Dilacor XR, diltiazem	15, 207	С	
Dilantin, phenytoin	392, 412, 510	D	
Dilatrate, Dilatrate-SR, isosorbide dinitrate	16	С	
Dilaudid, Dilaudid HP, hydromorphone	301	С	II
diltiazem, Cardizem, Cardizem CD, Cardizem LA, Cartia XT, Dilacor, Dilacor XR, Tiazac, Tiazac ER	14–15, 163, 206–207	С	
dimenhydrinate, Dramamine	255, 258	В	
dimethyl fumarate, Tecfidera	259	С	
Diovan, valsartan	169, 206	D	
Diovan HCT, valsartan/ hydrochlorothiazide	212	D	
Dipentum, olsalazine	93, 436	С	
diphenhydramine, various	10, 20, 70, 107, 108, 110, 256	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
dipivefrin, Propine	151	В	
Diprolene, Diprolene AF, betamethasone dipropionate	496, 497	С	
dipyridamole, Persantine	519	В	
disopyramide, Norpace, Norpace CR	503	С	
disulfiram, Antabuse	10	X	
Ditropan, Ditropan XL, oxybutynin	231, 237	В	
Diuril, chlorothiazide	130, 170, 203, 446	В	
divalproex, Depakote	42, 46, 165, 412, 509	D	
docosanol, Abreva	185	NE	
docusate calcium, Colace, Dialose, Surfak	87	С	
docusate casanthranol, Peri- Colace	89	С	
dolasetron, Anzemet	270	В	
Dolobid, diflunisal	491	С	
Dolophine, methadone	278, 302	В	
Domeboro Otic, acetic acid in aluminum sulfate	289	NE	
Donnagel, attapulgite	117, 119	NE	
Donnatal, phenobarbital/ hyoscyamine/atropine/ scopolamine	91, 241	С	II
Dostinex, cabergoline	201	В	
Doryx, doxycycline	4, 6, 18, 19, 51, 52, 56, 64, 73, 75, 76, 134, 153, 158, 187, 249, 252, 317, 333, 349, 377, 382, 388, 438, 442, 530, 538	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
dorzolamide, Trusopt	149	С	
Double Cap, capsaicin	105, 113, 156, 243, 244, 263–265, 283, 297–298, 320, 321, 339, 352, 357, 364, 489, 490	В	
Dovonex, calcipotriene	353	С	
doxazosin, Cardura, Cardura XL	209	С	
doxepin, Prudoxin, Silenor, Zonalon	105, 235, 339, 352	С	
doxercalciferol, Hectorol	221, 224, 286	С	
Doxidan, docusate/ phenolphthalein	89	С	
doxycycline, Acticlate, Adoxa, Doryx, Monodox, Oracea, Vibramycin, Vibra-Tab	4, 6, 19, 51, 52, 56, 64, 73, 75, 76, 134, 153, 158, 187, 249, 252, 317, 333, 349, 377, 382, 388, 438, 442, 530, 538	D	
Dramamine, dimenhydrinate	255, 258	В	
Dramamine II, meclizine	246, 256, 259, 269, 448	В	
dronabinol, Marinol	17, 268	С	III
droxidopa, Northera	225	С	
Dryvax, vaccina virus vaccine (dried calf lymph type)	390	С	
Duac, clindamycin/benzoyl peroxide	5, 143	С	
Duet DHA Balanced, Duet DHA Complete, prenatal vitamins	521	A	
Duexis, ibuprofen/famotidine	492	B/D	
dulaglutide, Trulicity	427	С	
Dulcolax, bisacodyl	89, 132	В	
Dulera, mometasone/formoterol	32	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
duloxetine, Cymbalta	24, 99, 139, 312, 320, 345	С	
DuoFilm, salicylic acid	449	NE	
DuoNeb, ipratropium/albuterol	31	С	
dupilumab, Dupixent	104		
Dupixent, dupilumab	104		
<b>Duragesic,</b> fentanyl transdermal system	306	С	II
Duramorph PF, morphine sulfate	302	С	II
Duratuss AC, diphenhydramine/ dextromethorphan/phenylephrine	525	С	
Durezol, difluprednate	136, 296	С	
Duricef, cefadroxil	55, 227, 325, 380, 387, 409, 442, 452, 532, 550	В	
Durlaza, aspirin	518	D	
<b>Dutoprol</b> , metoprolol succinate/ ext-rel hydrochlorothiazide	212–213	С	
Dyazide, triamterene/ hydrochlorothiazide	132, 172, 205	В	
<b>Dymista,</b> azelastine/ fluticasone propionate	374	С	
Dynacin, minocycline	4, 6, 19, 25, 187, 250, 253, 389, 443, 538	D	
DynaCirc, DynaCirc CR, isradipine	207	С	
Dyrenium, triamterene	131, 203	В	
echothiophate, Phospholine Iodide	150	С	
EC-Naprosyn, naproxen	139	В	
econazole, Spectazole	60, 116, 400, 402, 404, 405	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Econopred, Econopred Plus, prednisolone acetate	79	С	
EContra EZ, levonorgestrel	488	В	
Edarbi, azilsartan	206	D	
Edarbyclor, azilsartan medoxomil/chlorthalidone	211	D	
Edecrin, ethacrynic acid	131, 170, 203	В	
edetate calcium disodium (EDTA), Calcium Disodium Versenate	247	В	
edoxaban, Savaysa	516	С	
Edurant, rilpivirine	193, 512	В	
E.E.S., erythromycin ethylsuccinate	6, 53, 57, 64, 67, 70, 73, 75, 76, 86, 97, 121, 135, 158, 187, 228, 249, 252, 277, 315, 323, 326, 329, 336, 381, 389, 410, 438, 453, 535, 563, 564	В	
efavirenz, Sustiva	192, 513	С	
Effexor, Effexor XR, venlafaxine	24, 98, 99, 312, 345	С	
Effient, prasugrel	517, 519	В	
efinaconazole, Jublia	277	С	
eflornithine, Vaniqa	136	С	
Efudex, fluorouracil, 5-fluorouracil, 5-FU	8	D	
Elestat, epinastine	80	С	
eletriptan, Relpax	160	С	
Elidel, pimecrolimus	105, 339, 352	С	
Eligard, leuprolide acetate	505	X	
Elimite, permethrin	380	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Eliquis, apixaban	516	С	
ella, ulipristal	488	X	
Elmiron, pentosan polysulfate sodium	237	В	
Elocon, mometasone furoate	496	С	
Emadine, emedastine difumarate	79	С	
Embeda, morphine/naltrexone	302	С	II
emedastine difumarate, Emadine	79	С	
Emend, aprepitant	270	В	
Emetrol, phosphorated carbohydrated solution	268	NE	
empagliflozen, Glyxambi	430	С	
Emflaza, deflazacort	123	В	
Emsam, selegiline	101, 347	С	
emtricitabine, Emtriva	191, 512	В	
Emtriva, emtricitabine	191, 512	В	
Emverm, mebendazole	188, 327, 378, 399, 410, 451, 529	С	
Enablex, darifenacin	230	С	
enalapril, Epaned, Vasotec	168, 205	D	
Enbrel, etanercept	355, 359, 367	В	
enfuvirtide, Fuzeon	195, 512	В	
enoxaparin, Lovenox	516	В	
Enpresse, ethinyl estradiol/ levonorgestrel	478	X	
Enstilar, calcipotriene/ betamethasone	354	С	
entecavir, Baraclude	176	С	
Entocort EC, budesonide	93, 435	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Entresto, sacubitril/valsartan	169	D	
Entyvio, vedolizumab	93, 94, 437	В	
Epaned, enalapril	168, 205	D	
Epanova, omega 3-acid ethyl esters	217	NE	
Epclusa, sofosbuvir/velpatasvir	180	NE	
Epiduo Gel, adapalene/benzoyl peroxide	7	С	
epinastine, Elestat	80	С	
epinephrine, Adrenaclick, Adrenalin, Auvi-Q, Epi-E-Zpen, EpiPen, EpiPen Jr, Twinject	12, 391	С	
EpiPen, EpiPen Jr, epinephrine	12, 391	С	
Epivir, Epivir-HBV, lamivudine, 3TC	177, 191, 512, 531	С	
eplerenone, Inspra	170, 209	В	
Epogen, epoetin alpha	13	С	
epoetin alpha, Epogen, Procrit	13	С	
eprosartan, Teveten	206	D	
Epzicom, abacavir/lamivudine	196, 512	С	
Equagesic, meprobamate/aspirin	263	D	IV
Equetro, carbamazepine	43, 47, 509	D	
erlotinib, Tarceva	506	D	
Errin, norethindrone	485	X	
Ertaczo, sertaconazole	404	С	
ertapenem, Invanz	334, 444, 537	В	
EryPed, erythromycin ethylsuccinate	6, 53, 57, 64, 67, 70, 73, 75, 76, 86, 97, 121, 135, 158, 187, 228, 249, 252, 277, 315, 323, 326, 329, 336, 381, 389, 410, 438, 453, 535, 563, 564	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Ery-Tab, erythromycin base	6, 53, 57, 64, 67, 70, 73, 75, 76, 86, 97, 121, 135, 158, 187, 228, 249, 252, 277, 315, 323, 326, 329, 336, 381, 389, 410, 438, 453, 535, 563, 564	В	
Erythrocin, erythromycin stearate	536	В	
erythromycin base, Ery-Tab, PCE	6, 53, 57, 64, 67, 70, 73, 75, 76, 86, 97, 121, 135, 158, 187, 228, 249, 252, 277, 315, 323, 326, 329, 336, 381, 389, 410, 438, 453, 535, 563, 564	В	
erythromycin ethylsuccinate, E.E.S., EryPed	6, 53, 57, 64, 67, 70, 73, 75, 76, 86, 97, 121, 135, 158, 187, 228, 249, 252, 277, 315, 323, 326, 329, 336, 381, 389, 410, 438, 453, 535, 563, 564	В	
erythromycin gluceptate, Ilotycin	53, 82, 277, 278, 392	В	
erythromycin stearate, Erythrocin	536	В	
escitalopram, Lexapro	23, 98, 311, 343	С	
Esidrix, hydrochlorothiazide	130, 170, 203, 446	В	
Esimil, guanethidine monosulfate/hydrochlorothiazide	213	В	
esomeprazole, Nexium	147, 318, 455	В	
estazolam, ProSom	235	X	IV
ethosuximide, Zarontin	509	С	
Estrostep 21, ethinyl estradiol/ norethindrone	478	X	
Estrostep FE, ethinyl estradiol/ norethindrone/ferrous fumarate	478	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
eszopiclone, Lunesta	140, 234	С	IV
etanercept, Enbrel	355, 359, 367	В	
ethacrynic acid, Edecrin	131, 170, 203	В	
ethambutol, Myambutol	414, 531	В	
ethotoin, Peganone	509	С	
etodolac, Lodine, Lodine XL	491	С	
etonogestrel, Implanon, Nexplanon	487	X	
Etrafon, perphenazine/ amitriptyline	25	С	
etravirine, Intelence	192, 512	В	
Eucrisa, crisaborole	104		
Eulexin, flutamide	505	D	
Eurax, crotamiton	380	С	
Evekeo, amphetamine sulfate	34–35, 266, 272	С	II
Evista, raloxifene	287	X	
Evoclin Foam, clindamycin	5, 143	В	
Evoxac, cevimeline	385	С	
Exalgo, hydromorphone	301	С	II
Excedrin Migraine, acetaminophen/aspirin/caffeine	162	D	
Excedrin PM, acetaminophen/diphenhydramine	235	В	
Exelderm, sulconazole nitrate	401, 402, 404, 406	С	
exemestane, Aromasin	504	D	
exenatide, Bydureon, Byetta	427	С	
Exforge, amlodipine/valsartan	215	D	
Exforge HCT, amlodipine/ valsartan/hydrochlorothiazide	215	D	
Exjade, deferasirox	239	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Exparel, bupivacaine liposome	489	С	
Extavia, interferon beta-1b	261	С	
ezetimibe, Zetia	125	С	
ezogabine, Potiga	509	С	
Factive, gemifloxacin	57, 334, 389, 453, 535	С	
famciclovir, Famvir	184, 185, 531	В	
famotidine, Pepcid, Pepcid AC, Pepcid RPD	146, 318	В	
Famvir, famciclovir	184, 185, 531	В	
Fanapt, iloperidone	508	С	
Farxiga, dapagliflozin	429	С	
Faslodex, fulvestrant	505	D	
Fastin, phentermine	273	С	IV
Fazaclo, clozapine	507	В	
febuxostat, Uloric	155	С	
felbamate, Felbatol	509	С	
Felbatol, felbamate	509	С	
Feldene, piroxicam	493, 494	С	
felodipine, Plendil	207	С	
Femara, letrozole	505	D	
Femcon Fe, estradiol/ norethindrone	478	X	
Femstat-3, butoconazole	62	С	
fenofibrate, Antara, Lipofen, Lofibra, TriCor, TriLipix	127, 218	С	
fenoprofen, Nalfon	491	B/D	
fentanyl buccal soluble film, Onsolis	306	С	II

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
fentanyl nasal spray, Lazanda Nasal Spray	2308	С	II
fentanyl sublingual tablet, Abstral	307	С	II
fentanyl sublingual spray, Subsys	307	С	II
fentanyl transdermal system, Duragesic	306	С	II
fentanyl transmucosal unit, Actiq, Fentora	307	С	II
Fentora, fentanyl transmucosal unit	307	С	II
Feosol, ferrous sulfate	14	A	
Fergon, ferrous gluconate	14	A	
Fer-In-Sol, ferrous sulfate	14	A	
fesoterodine fumarate, Toviaz	230	С	
Fetzima, levomilnacipran	24, 98, 312, 343	С	
Feverall, acetaminophen	137	В	
Fexmid, cyclobenzaprine	140, 262	В	
Fibercon, calcium polycarbophil	87, 117	С	
Fibricor, fenofibrate	127, 218	С	
Finacea, azelaic acid	3, 4	В	
finafloxacin, Xtoro	289	С	
fingolimod, Gilenya	260	С	
Fioricet with Codeine, butalbital/acetaminophen/ caffeine/codeine	167	С	III
Fiorinal, butalbital/aspirin/caffeine	167, 298	D	II
Fiorinal with Codeine, butalbital/aspirin/caffeine/ codeine	167, 298	D	III

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Flagyl, Flagyl 375, Flagyl ER, metronidazole	11, 40, 94, 122, 148, 317, 353, 382, 411, 439, 529, 531	D/B	
Flarex, fluorometholone acetate	79	С	
flavoxate, Urispas	230, 446	В	
Flector Patch, diclofenac epolamine	264, 265, 297, 321, 339, 489	С	
Fleet Enema, sodium phosphate/ sodium biphosphate	90	С	
Flexeril, cyclobenzaprine	140, 262	В	
Flomax, tamsulosin	446	В	
Flonase Allergy Relief, fluticasone propionate	373	С	
Florone, diflorasone diacetate	497	С	
Flovent HFA, fluticasone propionate	28, 501	С	
Floxin, Floxin Otic Solution, ofloxacin	57, 73, 135, 289, 293, 334, 350, 351, 383, 389, 433, 439, 440, 444, 453, 534	С	
Fluad, influenza virus vaccine w. adjuvant	240	В	
Fluarix, influenza virus vaccine	232	В	
Fluarix Quadrivalent, influenza virus vaccine	232	В	
Flublok, influenza virus vaccine	232	В	
Flucelvax, influenza virus vaccine	232	С	
fluconazole, Diflucan	59, 63, 530, 566	С	
Flu-Immune, influenza virus vaccine	222	С	
FluLaval, influenza virus vaccine	232	С	
Flumadine, rimantadine	531, 573	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
flunisolide, AeroBid, AeroBid M, Nasalide, Nasarel	28, 373, 501	С	
fluocinonide, Lidex, Lidex-E, Vanos	497	С	
fluocinolone acetonide, Capex Shampoo, Derma-Smoothe/FS, Synalar	105, 111, 352, 454, 495	С	
fluoride, Luride	142	NE	
fluorometholone, FML, FML Forte, FML S.O.P. Ointment	78	С	
fluorometholone acetate, Flarex	79	С	
Fluoroplex, fluorouracil, 5-fluorouracil, 5-FU	8	D	
fluorouracil, 5-fluorouracil, 5-FU, Adrucil, Efudex,Fluoroplex	8	D	
fluoxetine, Prozac, Prozac Weekly, Sarafem	23, 45, 58, 98, 165, 275, 311, 343, 348	С	
fluoxymesterone, Halotestin	396	X	
fluphenazine, Prolixin	508	С	
fluphenazine decanoate, Prolixin Decanoate	508	С	
flurandrenolide, Cordran	496, 497	С	
flurazepam, Dalmane	140, 235	X	IV
flurbiprofen, Ansaid	491	В	
Flushield, influenza virus vaccine	232	С	
flutamide, Eulexin	505	D	
fluticasone furoate, Veramyst	373	С	
fluticasone propionate, Children's Flonase Allergy Relief, Cutivate, Flonase Allergy Relief, Flovent, Flovent HFA	28, 373, 496	С	
fluvastatin, Lescol	126, 218	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Fluzone, influenza virus vaccine	232	С	
FML Liquifilm, fluorometholone	78	С	
FML-S, sulfacetamide sodium/ fluorometholone	84	С	
Focalin, Focalin XR dexmethylphenidate	35, 266	С	II
fondaparinux	516	В	
Foradil Aerolizer, formoterol fumarate	33	С	
Forfivo XL, bupropion hydrochloride	100, 406	С	
formoterol, Foradil Aerolizer, Perforomist	33	С	
Fortamet, metformin	424	В	
Fortaz, ceftazidime	533	В	
Forteo, teriparatide	224, 287	С	
Fortesta, testosterone	397	X	III
Fortical, calcitonin-salmon	285	С	
Fortovase, saquinavir	195, 512	В	
Fosamax, alendronate	286, 294	С	
Fosamax Plus D, alendronate/calcium	286, 295	С	
fosamprenavir, Lexiva	194, 513	С	
fosfomycin tromethamine, Monurol	440, 539	С	
fosinopril, Monopril	168, 205	D	
Fosrenol, lanthanum	200	С	
Fragmin, dalteparin	516	С	
Frova, frovatriptan succinate	161	С	
frovatriptan succinate, Frova	161	С	
fulvestrant, Faslodex	505	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Fulyzaq, crofelemer	117, 119	С	
Furadantin, nitrofurantoin	443, 539, 571	В	
furosemide, Lasix	131, 171, 204	С	
Fuzeon, enfuvirtide	195, 512	В	
Fycompa, perampanel	510	С	
gabapentin, Gralise, Neurontin	114, 140, 338, 510	С	
gabapentin enacarbil, Horizant	114, 140, 338	С	
Gabitril, tiagabine	511	С	
ganciclovir, Cytovene, Zirgan	246, 511	С	
Garamycin, Garamycin Ophthalmic, Garamycin Topical, genta-mycin	82, 392, 532	С	
gatifloxacin, Zymar, Zymaxid	82	С	
Gaviscon, Gaviscon ES, aluminum hydroxide/magnesium trisilicate	145	С	
gefitinib, Iressa	505	D	
GelniQUE, oxybutinin	231	В	
gemfibrozil, Lopid	127, 217	С	
gemifloxacin, Factive	57, 334, 389, 453, 535	С	
Generess Fe, ethinyl estradiol/ norethindrone	478	X	
Genoptic, gentamicin	82, 392	С	
Genotropin, Genotropin Miniquick, somatropin	159	С	
gentamicin, Garamycin, Garamycin Ophthalmic, Garamycin Topical, Genoptic	82, 392, 532	С	
GenTeal Mild, hydroxypropyl methylcellulose	123	NE	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Genvoya, elvitegravir/cobicistat/ emtricitabine/tenofovir alafenamide (AF)	196, 512	В	
Geodon, ziprasidone	45, 50, 508	С	
Gianvi, ethinyl estradiol/ drospirenone	478	X	
Gilenya, fingolimod	260	С	
glatiramer acetate, Copaxone	260	В	
Gleevec, imatinib mesylate	505	D	
glimeperide, Amaryl	423	С	
glipizide, Glucotrol, Glucotrol XL	423	С	
glucagon, Glucagon	143	В	
Glucagon, glucagon	143	В	
Glucophage, Glucophage XR, metformin	424	В	
Glucotrol, Glucotrol XL, glipizide	423	С	
Glucovance, glyburide/metformin	426	В	
Glumetza, metformin	424	В	
glyburide, DiaBeta, Glynase, Micronase	423	В	
Glycet, miglitol	423	В	
GlycoLax, polyethylene glycol	88	С	
glycopyrrolate, Robinul	319	В	
glycopyrrolate, Seebri Neohaler	33	С	
Glynase, glyburide	423	В	
Gly-Oxide, carbamide peroxide	25	NE	
<b>Glyquin</b> , hydroquinone/padimate o/oxybenzone/octyl methoxycinnamate	201	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Glyxambi, empagliflozen	430	С	
golimumab, Simponi	356, 359, 367	В	
goserelin, Zoladex	506	X	
Gralise, gabapentin	114, 140, 338, 510	С	
granisetron, Kytril, Sancuso	270	В	
granisetron, Sustol	270	NE	
Grastek, timothy grass pollen allergen extract	371	С	
Grifulvin V, griseofulvin (microsized)	276, 400, 401, 403, 405, 530, 568	С	
griseofulvin (microsized), Gris- PEG	276, 400, 401, 403, 405, 530, 568	С	
Gris-PEG, griseofulvin (microsized)	276, 400, 401, 403, 405, 530, 568	С	
guanabenz	209	С	
guanethidine, Ismelin	209-210	С	
guanfacine, Intuniv, Tenex	37, 209	В	
Gynazole-1, butoconazole	62	В	
Gyne-Lotrimin, Gyne- Lotrimin-3, clotrimazole	62	В	
Habitrol, nicotine transdermal system	407	D	
halcinonide, Halog	497	С	
Halcion, triazolam	20, 140, 235	X	IV
Haldol, haloperidol	508	С	
Haldol Decanoate, haloperidol decanoate	488	С	
halobetasol propionate, Ultravate	498	С	
Halog, halcinonide	497	С	
haloperidol, Haldol	487	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
haloperidol decanoate, Haldol Decanoate	488	С	
Halotestin, fluoxymesterone	396	X	
Harvoni, ledipasvir/sofosbuvir	180	NE	
Hectorol, doxercalciferol	221, 224, 286	С	
Helidac Therapy, bismuth subsalicylate/metronidazole/ tetracycline	173	D	
heparin	516	С	
Hepsera, adenovir dipivoxil	176	С	
Herplex, idoxuridine	246	С	
hexachlorophene, PhisoHex	386	С	
Hiprex, methenamine hippurate	444, 445	С	
Horizant, gabapentin enacarbil	114, 140, 338	С	
HMS, medrysone	79	С	
Humalog, Humalog KwikPen, insulin lispro	418, 419, 421	В	
Humalog Mix 75/25, Humalog Mix 50/50, insulin lispro protamine/insulin lispro	421	В	
Humatin, paromomycin	11	С	
Humatrope, somatropin	159	С	
Humira, adalimumab	94, 356, 359, 367, 436	В	
Humulin 70/30, Humulin 50/50, insulin isophane suspension/insulin regular	421	В	
Humulin L, Iletin II Lente, insulin zinc suspension (lente)	420	В	
Humulin N, insulin zinc isophane suspension	420	В	
Humulin R, Humulin R U-500, insulin regular	418	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Humulin U, insulin extended zinc suspension (ultralente)	421	В	
Hyal, sodium hyaluronate	284, 370	В	
Hyalgan, sodium hyaluronate	284, 370	В	
<b>Hycet,</b> hydrocodone bitartrate/ acetaminophen	300	С	II
Hycodan, Hycodan Syrup, hydrocodone/homatropine	525	С	II
hydralazine	17, 210	С	
Hydrea, hydroxyurea	505	D	
hydrochlorothiazide, Esidrix, Microzide	130, 170, 203, 446	В	
hydrocodone bitartrate, Hysingla ER, Vantrela ER, Zohydro ER	300	С	II
hydrocortisone, Anusol-HC, Cortaid, Cortef, Cortifoam, Hydrocortone, Hytone, Proctocort, Texacort	174, 435, 495	С	
hydrocortisone acetate, U-Cort	495	С	
hydrocortisone butyrate, Locoid	496	С	
hydrocortisone phosphate, Hydrocotone Phosphate	500	С	
hydrocortisone probutate, Pandel	496	С	
hydrocortisone retention enema, Cortenema	435	С	
hydrocortisone sodium succinate, Solu-Cortef	500	С	
hydrocortisone valerate, Westcort	496	С	
Hydrocortone, hydrocortisone	498, 500	С	
Hydrocotone Phosphate, hydrocortisone phosphate	500	С	
hydroflumethiazide, Saluron	130	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
hydromorphone, Dilaudid, Dilaudid HP, Exalgo, Paladone	301	С	II
hydroquinone, Lustra, Lustra AF	200, 255	С	
hydroxychloroquine, Plaquenil	254, 366, 531	С	
hydroxypropyl cellulose, Lacrisert	123	NE	
hydroxypropyl methylcellulose, Bion Tears, GenTeal Mild	123	NE	
hydroxyurea, Hydrea	505	D	
hydroxyzine, Atarax, Vistaril	20, 70, 108, 110, 256, 313, 371, 376, 525, 528	С	
hyoscyamine, Anaspaz, Levbid, Levsin, Levsinex Timecaps, NuLev	76, 91, 230, 236, 241, 444 4	С	
Hypotears, hydroxypropyl cellulose	123	NE	
Hysingla ER, hydrocodone bitartrate	300	С	
Hytone, hydrocortisone	495	С	
Hytrin, terazosin	209	С	
<b>Hyzaar,</b> losartanl hydrochlorothiazide	211	D	
ibandronate (as monosodium monohydrate), Boniva	286, 295	С	
Ibudone, hydrocodone/ibuprofen	301	D	II
ibuprofen, Advil, Caldolor, Motrin, PediaCare Fever Drops, PediaProfen	139, 296	D	
icosapent ethyl, Vascepa	217	NE	
idarucizumab, Praxbind	518	NE	
Iletin II Lente, insulin zinc suspension (lente)	418	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Iletin II NPH, insulin isophane suspension	420	В	
Iletin II Regular, insulin regular	418	В	
iloperidone, Fanapt	508	С	
Ilotycin, erythromycin gluceptate	53, 82, 277, 378, 392	В	
imatinib mesylate, Gleevec	505	D	
Imdur, isosorbide mononitrate	16	В	
imipramine, Tofranil, Tofranil PM	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 338–339, 341–342, 346, 413	С	
imiquimod, Aldara, Zyclara	8, 450	В	
Imitrex, Imitrex Injectable, Imitrex Nasal Spray, sumatriptan	161	С	
Imodium, loperamide	118, 119, 240, 437	В	
Imodium AD, loperamide/ simethicone	118, 119, 240, 437	В	
Impavido, miltefosine	248	D	
Implanon, etonogestrel	487	X	
Imuran, azathioprine	92, 366	D	
Increlex, mecasermin	159	В	
indapamide, Lozol	132, 171, 204	В	
Inderal LA, propranolol	16, 163, 202, 217, 258, 345	С	
Inderide, Inderide LA, propranolol/hydrochlorothiazide	213	С	
indinavir, Crixivan	194, 511	С	
Indocin, indomethacin	492	B/D	
indomethacin, Indocin, Tivorbex	492	B/D	
Infergen, interferon alfacon-1	178	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
infliximab, Inflectra, Remicade	92, 94, 356, 359, 368, 437	С	
influenza virus vaccine, Fluarix, Fluarix Quadrivalent, Flublok, Flucelvax, Flu-Immune, FluLaval, Flushield, Fluzone	232	В	
Ingrezza, valbenazine	43, 48, 395–396, 507	NE	
ingenol mebutate, Picato	9	С	
inh, isoniazid	414, 532	С	
InnoPran XL, propranolol	16, 163, 202, 217, 258, 345, 502	С	
Inspra, eplerenone	170, 209	В	
insulin aspart, NovoLog	418	С	
insulin degludec (insulin analog), Tresiba	420	С	
insulin detemir, Levemir	419	С	
insulin extended zinc suspension (ultralente), Humulin U	421	В	
insulin glargine (recombinant), Basaglar, Lantus, Toujeo	419	С	
insulin glulisine (rDNA origin), Apidra	418	В	
insulin isophane suspension, Humulin N, Iletin II NPH, Novolin N	420	В	
insulin lispro, Humalog KwikPen, Humalog	418	В	
insulin regular, Humulin R, Humulin R U-500, Iletin II, Regular, Novolin R	418	В	
insulin zinc suspension (lente), Humulin L, Iletin II Lente, Novolin L	420	В	
Intal, cromolyn sodium	29	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Intelence, etravirine	192, 512	В	
interferon alfa-2b, Intron A	177, 178, 451	С	
interferon alfacon-1, Infergen	178	С	
interferon alfa-n3 (human leukocyte derived), Alferon N	450	С	
interferon beta-1a, Avonex, Rebif, Rebif Rebidose	260	С	
interferon beta-1b, Betaseron, Extavia	261	С	
interferon gamma-1b, Actimmune	261	С	
Intermezzo, zolpidem tartrate	141, 234	С	IV
Intron A, interferon alfa-2b	177, 178, 451	С	
Introvale, ethinyl estradiol/ levonorgestrel	478	X	
Intuniv, guanfacine	37, 209	В	
Invanz, ertapenem	334, 444, 537	В	
Invega, Invega Sustenna, paliperidone	508	С	
Invirase, saquinavir mesylate	195, 512	В	
Invokana, canagliflozin	428	С	
Invokamet, canagliflozin/ metformin	429	С	
iodoquinol, diiodohydroxyquin, Yodoxin	529	С	
Ionamin, phentermine	273	С	IV
Iopidine, apraclonidine	149	С	
ipratropium bromide, Atrovent	27, 374–376	В	
Iprivask, desirudin	518	С	
irbesartan, Avapro	206	D	
Iressa, gefitinib	505	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Isentress, raltegravir	190, 195, 512	С	
Ismelin, guanethidine	209-210	С	
Ismo, isosorbide mononitrate	16	В	
isocarboxazid, Marplan	101	С	
isoniazid, inh	414, 532	С	
isoproterenol, Medihaler-ISO	30	В	
Isoptin, Isoptin SR, verapamil	15, 164, 208	С	
Isopto Carbachol, carbachol	149	С	
Isopto Carpine, pilocarpine	149	С	
Isordil Titradose, isosorbide dinitrate	16	С	
isosorbide dinitrate, Dilatrate, Dilatrate-SR, Isordil Titradose	16	С	
isosorbide mononitrate, Imdur, Ismo	16	В	
isotretinoin, retinoic acid, Amnesteem, Accutane	7	X	
isradipine, DynaCirc, DynaCirc CR	207	С	
Istalol, timolol	150	С	
itraconazole, Sporanox	59, 276, 530, 569	С	
ivermectin, Sklice, Soolantra, Stromectol	3, 316	С	
Janumet, Janumet XR, sitagliptin/metformin	431	В	
Januvia, sitagliptin	430	В	
Jenest-21, Jenest-28, ethinyl estradiol/norethindrone	478	X	
Jentadueto, Jentadueto XR, linagliptin/metformin	431	В	
Jolessa, ethinyl estradiol/ levonorgestrel	478, 485	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Jublia, efinaconazole	277	С	
Junel 1/20, Junel 1.5/30, ethinyl estradiol/norethindrone	478	X	
Junel Fe 1/20, Junel Fe 1.5/30, ethinyl estradiol/norethindrone	478	X	
Juvisync, sitagliptin/simvastatin	432	X	
Juxtapid, lomitapide mesylate	124	X	
Kadian, morphine sulfate	302	С	II
Kaletra, lopinavir/ritonavir	189, 196, 512	С	
Kaopectate, kaolin/pectin	117	С	
Kapvay, clonidine	37, 209, 344	С	
Kariva, ethinyl estradiol/ desogestrel	479	X	
<b>Kayexalate,</b> sodium polystyrene sulfonate	189	С	
K-Dur, potassium chloride	212	С	
Keflex, cephalexin	39, 56, 66, 228, 251, 255, 292, 315, 325, 362, 380, 388, 409, 442, 453, 532, 557	В	
Kefzol, cefazolin	38	В	
Kelnor, ethinyl estradiol/ ethynodiol diacetate	479	X	
Kenalog, Kenalog E, triamcinolone	25	С	
Kenalog Injectable, Kenalog Lotion, Kenalog Ointment, Kenalog Spray, triamcinolone acetonide	495, 496	С	
Keppra, levetiracetam	510	С	
Keratol 40, urea cream	386	С	
Kerlone, betaxolol	201	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Kerydin, tavaborole	277	С	
Ketek, telithromycin	57, 334, 535	С	
ketoconazole, Extina, Nizoral, Xolegel	60, 111, 116, 400–406, 530	С	
ketorolac tromethamine, Acular, Acular PF, Sprix, Toradol	81, 136, 492	С	
ketoprofen fumarate, Alaway, Zaditor	80	С	
Kineret, anakinra	368	В	
Klaron, sulfacetamide	4, 5	С	
Klonopin, clonazepam	20, 21, 314, 412, 509	С	IV
Klotrix, potassium chloride	223	A	
Kombiglyze XR, saxagliptin/ metformin	431	В	
Konsyl, calcium polycarbophil	87	С	
Kristalose, lactulose	88	В	
Krystexxa, pegloticase	154	С	
K-Tab, potassium chloride	223	С	
Kwell Lotion, Kwell Shampoo, lindane/benzene hexachloride	316, 380	С	
Kyleena, levonorgestrel	487	X	
Kynamro, mipomersen	125	В	
Kytril, granisetron	270	В	
labetalol, Normodyne, Trandate	203	С	
lacosamide, Vimpat	510	С	v
Lacri-Lube, Lacri-Lube NP, petrolatum/mineral oil	123	NE	
Lacrisert, hydroxypropyl cellulose	123	NE	
Lactaid Drops, Lactaid Extra, Lactaid Fast ACT, Lactaid Original,Lactaid Ultra, lactase	247	NE	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
lactase, Lactaid Drops, Lactaid Extra, Lactaid Fast ACT, Lactaid Original, Lactaid Ultra	247	NE	
lactulose, Kristalose	88	В	
Lamictal, Lamictal XR, lamotrigine	43, 47, 510	С	
Lamisil, Lamisil AT, terbinafine	277, 401, 402, 404, 406, 530	В	
lamivudine, 3TC, Epivir, Epivir- HBV	177, 191, 512, 531	С	
lamotrigine, Lamictal, Lamictal XR	43, 47, 510	С	
Lanoxicaps, digoxin	172	A	
Lanoxin, digoxin	172	A	
lansoprazole, Prevacid, Prevacid Suspension, Prevacid SoluTab, Prevacid 24HR	147, 319, 455	В	
lanthanum, Fosrenol	200	С	
Lantus, insulin glargine (recombinant)	419	С	
Lariam, mefloquine	254, 531	С	
Lasix, furosemide	131, 171, 204	С	
Lastacaft, alcaftadine	80	В	
latanoprost, Xalatan	151	С	
Latuda, lurasidone	44, 48, 508	В	
Lazanda Nasal Spray, fentanyl nasal spray	308	С	II
Leena, ethinyl estradiol/ norethindrone	479	X	
leflunomide, Arava	366	X	
Lemtrada, alemtuzumab cenzyme	260	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Lescol, Lescol XL fluvastatin	126, 218	X	
lesinurad, Zurampic	156	NE	
Lessina, ethinyl estradiol/ levonorgestrel	479	X	
Letairis, ambrisentan	360	X	
letrozole, Femara	505	D	
Leukeran, chlorambucil	505	D	
leuprolide, Viadur	506	X	
leuprolide acetate, Eligard, Lupron Depot	505	X	
levalbuterol, Xopenex	31	С	
Levaquin, levofloxacin	57, 73, 135, 329, 334, 362, 385, 389, 439, 440, 443, 454, 534	С	
Levatol, penbutolol	202	С	
Levbid, hyoscyamine	91, 230, 236, 241, 444	С	
Levemir, insulin detemir	419	С	
levetiracetam, Keppra	510	С	
Levitra, vardenafil	16, 361	В	
Levlen-21, Levlen-28, ethinyl estradiol/levonorgestrel	479, 483	X	
Levlite-28, ethinyl estradiol/ levonorgestrel	479	X	
levobunolol, Betagan	150	С	
levocabastine, Livostin	79	С	
levocetirizine, Children's Xyzal Allergy 24HR, Xyzal Allergy 24HR	103, 107, 109, 371, 379, 448	В	
levofloxacin, Levaquin	57, 73, 135, 329, 334, 362, 385, 389, 439, 440, 443, 454, 534	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
levofloxacin ophthalmic solution, Quixin	82	С	
levomilnacipran, Fetzima	24, 98, 312, 343	С	
levonorgestlrel, Kyleena, MyWay, Plan-B One Step	487	X	
Levora-21, Levora-28, ethinyl estradiol/levonorgestrel	479	X	
levothyroxine, Levoxyl, Synthroid, Unithroid	225–226	A	
Levsin, Levsinex Timecaps, hyoscyamine	76, 91, 230, 236, 241, 444	С	
levonorgestrel, EContra EZ	488	X	
levonorgestrel IUD, Mirena, Skyla	487	X	
Levoxyl, levothyroxine	225	A	
Lexapro, escitalopram	23, 98, 311, 343	С	
Lexiva, fosamprenavir	194, 513	С	
Lialda, mesalamine	93, 436	В	
Librium, chlordiazepoxide	9, 21, 314	D	IV
LidaMantle, lidocaine/ hydrocortisone	174, 340, 489	В	
Lidex, Lidex-E, fluocinonide	497	С	
lidocaine, Dalcaine, Lidoderm, Xylocaine Injectable, Xylocaine Viscous Solution	25, 58, 106, 113, 175, 182, 233, 265, 298, 321, 340, 489, 490	В	
Lidoderm, lidocaine	58, 106, 113, 175, 182, 233, 265, 298, 321, 340, 489, 490	В	
Limbitrol, chlordiazepoxide/ amitriptyline	24, 101	D	IV
linaclotide, Linzess	87, 239	С	
linagliptin, Tradjenta	430	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Lincocin, lincomycin	539	В	
lincomycin, Lincocin	539	В	
Linzess, linaclotide	87, 239	С	
linezolid, Zyvox	67, 334, 389, 539	С	
lioresal, Baclofen	261, 412	С	
liothyronine, Cytomel	225	A	
Lipitor, atorvastatin	126, 218	X	
Lipofen, fenofibrate	127, 218	С	
liraglutide, Victoza	428	С	
lisdexamfetamine, Vyvanse	35, 41	С	II
lisinopril, Prinivil, Zestril	168. 169, 205	D	
lithium carbonate, Eskalith, Eskalith CR, Lithane, Lithobid	42, 46	D	
Lithobid, lithium carbonate	42, 46	D	
Livalo, pitavastatin	126	X	
Livostin, levocabastine	79	С	
lixisenatide, Adlyxin	428	С	
Locoid, hydrocortisone butyrate	496	С	
Lodine, Lodine XL, etodolac	491	С	
lodoxamide tromethamine, Alomide	79, 246	В	
Loestrin 1/20, Loestrin 1.5/30, ethinyl estradiol/norethindrone	479	X	
Loestrin Fe 1/20, Loestrin Fe 1.5/30, Loestrin 24 Fe, ethinyl estradiol/norethindrone/ferrous fumarate	479	X	
Lofibra, fenofibrate	127, 218	С	
Lo Loestrin Fe ethinyl estradiol/ norethindrone/ferrous fumarate	479	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
lomefloxacin, Maxaquin	443, 534	С	
Lomotil, diphenoxylate/atropine	118, 119, 240, 437	С	V
Loniten, minoxidil	210	С	
Lo-Ogestrel-21, Lo-Ogestrel-28, ethinyl estradiol/norgestrel	480	X	
Lo/Ovral-21, Lo/Ovral-28, ethinyl estradiol/norgestrel	480	X	
loperamide, Imodium	118, 119, 240, 437	В	
Lopid, gemfibrozil	127, 217	С	
lomitapide mesylate, Juxtapid	124	X	
Lopressor, metoprolol tartrate	16, 163, 169, 202	С	
Lopressor HCT, metoprolol tartrate/hydrochlorothiazide	212	С	
Loprox, ciclopirox	60, 110, 400, 402, 403, 405	В	
Lorabid, loracarbef	57, 67, 228, 293, 326, 334, 363, 385, 389, 410, 453, 533, 570	В	
loracarbef, Lorabid	57, 67, 228, 293, 326, 334, 363, 385, 389, 410, 453, 533, 570	В	
lorazepam, Ativan, Lorazepam Intensol	21, 314, 392	D	IV
Lorazepam Intensol, lorazepam	21, 314	D	IV
lorcaserin, Belviq	274	X	
Lorcet, Lorcet HD, Lorcet Plus, hydrocodone/acetaminophen	300	С	II
Lortab, Lortab Elixer, hydrocodone/acetaminophen	300	С	II
Loryna, ethinyl estradiol/ drospirenone	480	X	
losartan, Cozaar	206	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
LoSeasonique, ethinyl estradiol/ levonorgestrel	485	X	
Lotemax, loteprednol etabonate	79, 238	С	
Lotensin, benazepril	205	D	
Lotensin HCT, benazepril/ hydrochlorothiazide	210	D	
loteprednol etabonate, Alrex, Lotemax	79, 136	С	
Lotrel, amlodipine/benazepril	213	D	
Lotrimin, clotrimazole	59, 116, 400, 402, 403, 405, 530	В	
Lotrisone, clotrimazole/ betamethasone dipropionate	117, 401, 404	С	
Lotronex, alosetron	240	В	
lovastatin, Altoprev, Mevacor	126, 219	X	
Lovaza, omega 3-acid ethyl esters	124, 217	С	
Lovenox, enoxaparin	516	В	
Lozol, indapamide	132, 171, 204	В	
Ludiomil, maprotiline	101	В	
Lufyllin GG, dyphylline/ guaifenesin	34	С	
luliconazole, Luzu Cream	400, 402, 404	С	
Lumigan, bimatoprost	151	С	
Lunesta, eszopiclone	140, 234	С	IV
Lupron Depot, leuprolide acetate	505	X	
lurasidone, Latuda	44, 508	В	
Luride, fluoride	142	NE	
Lucentis, ranibizumab	115	NE	
Lustra, Lustra AF, hydroquinone	200, 255	С	
Lutera, ethinyl estradiol/ levonorgestrel	480	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Luxiq, betamethasone valerate	111, 495	С	
Luzu Cream, luliconazole		С	
Lybrel, ethinyl estradiol/ levonorgestrel	480, 485	X	
Lyrica, pregabalin	114, 140, 320, 339, 510	С	V
Lysteda, tranexamic acid	257	В	
Maalox, Maalox HRF, aluminum hydroxide/magnesium hydroxide	144	С	
Maalox Plus, aluminum hydroxide/magnesium hydroxide/ simethicone	145	С	
Macrobid, Macrodantin, nitrofurantoin	443, 539	В	
Magnacet, oxycodone/ acetaminophen	303	С	II
magnesium citrate, Citrate of Magnesia	88	В	
magnesium hydroxide, Milk of Magnesia	88	В	
Malarone, Malarone Pediatric, atovaquone/proguanil	253, 530	С	
maprotiline, Ludiomil	101	В	
maraviroc, Selzentry	196, 513	В	
Marinol, dronabinol	17, 268	С	III
Marplan, isocarboxazid	101	С	
Mavik, trandolapril	169, 206	D	
Maxair, Maxair Autohaler, pirbuterol	31	С	
Maxalt, Maxalt-MLT, rizatriptan	161	С	
Maxaquin, lomefloxacin	443, 534	С	
Maxidex Ophthalmic, dexamethasone	78	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Maxidone, hydrocodone/ acetaminophen	300	С	II
Maxipime, cefepime	534	В	
Maxitrol, neomycin/polymyxin b/ dexamethasone sodium phosphate	84	С	
Maxzide, triamterenel hydrochlorothiazide	132, 172, 205	С	
Mebaral, mephobarbital	510	D	II
mebendazole, Emverm Vermox	188, 327, 378, 399, 410, 451, 529	С	
mecasermin, Increlex	159	В	
meclizine, Antivert, Bonine, Dramamine II, Zentrip	246, 256, 259, 269, 448	В	
meclofenamate	492	B/D	
Medihaler-ISO, isoproterenol	30	В	
Medrol, Medrol Dosepak, methylprednisolone	498, 500	С	
medroxyprogesterone, Depo-Provera	258, 486, 500	X	
medrysone, HMS	79	С	
mefenamic acid, Ponstel	130, 492	С	
mefloquine, Lariam	254, 531	С	
Mefoxin, cefoxitin	52, 154, 317, 533	В	
Megace, Megace ES, megestrol	18, 505	D	
megestrol, Megace, Megace ES	18, 505	D	
meglitinide, Prandin	424	С	
melphalan, Alkeran	504	D	
Mellaril, thioridazine	508	С	
meloxicam, Mobic, Vivlodex	130, 157, 264, 284, 358, 265–266, 492	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Mentax, butenafine	60, 116, 400, 402, 403, 405	В	
Menveo, neisseria meningitides oligosaccharide conjugate quadrivalent meningococcal vaccine	257	С	
meperidine, Demerol	301, 446	B/D	II
mephobarbital, Mebaral	510	D	II
Mephyton, phytonadione, vitamin k	515	С	
mepolizumab, Nucala	34	NE	
Mepron, atovaquone	253, 328, 530	С	
meropenem, Merrem	537, 539	В	
Merrem, meropenem	537, 539	В	
mesalamine, Apriso, Asacol, Canasa, Canasa, Lialda, Pentasa, Rowasa	92, 436	В	
Metadate CD, Metadate ER, methylphenidate	36, 267	С	II
Metaglip, glipizide/metformin	425	С	
Metamucil, psyllium	88	С	
Metanx, L-methylfolate calcium (as metafolin)/pyridoxyl 5-phosphate/methylcobalamin	112, 198, 434	NE	
metaproterenol, Alupent	30, 33	С	
metaxalone, Skelaxin	262	В	
metformin, Fortamet, Glucophage, Glucophage XR, Glumetza, Riomet	424–425	В	
methadone, Dolophine	278, 302	В	
methamphetamine, Desoxyn	266, 273	С	II
methazolamide, Neptazane	151	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
methenamine hippurate, Hiprex	444, 445	С	
methimazole, Tapazole	216	D	
methocarbamol, Robaxin	262	С	
methotrexate, Rheumatrex, Trexall	243, 245, 337, 367	X	
methoxsalen, Oxsoralen, Oxsoralen Ultra	449	С	
methscopolamine bromide, Pamine, Pamine Forte	91, 241	С	
methylcellulose, Citrucel	87	С	
methyldopa, Aldomet	209	В	
Methylin, Methylin ER, methylphenidate	36, 267	С	II
methylphenidate, Concerta, Daytrana, Metadate CD, Metadate ER, Methylin, Methylin ER, QuilliChew XR, Quillivant XR, Ritalin, Ritalin SR	36, 267	С	II
methylprednisolone, Depo- Medrol, Medrol	498, 500	С	
methylprednisolone sodium succinate, Solu-Medrol	500	С	
methsuximide, Celontin Kapseals	510	С	
methyltestosterone, Android, Testred	396	X	III
methysergide, Sansert	165	С	
metipranolol, OptiPranolol	150	С	
metoclopramide, Metozolv, Metozolv ODT, Reglan, Reglan ODT	148, 271	В	
metolazone, Zaroxolyn	132, 204	В	
metoprolol succinate, Toprol-XL	16, 163, 169, 202	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
metoprolol tartrate, Lopressor	16, 163, 169, 202	С	
Metozolv, Metozolv ODT, metoclopramide	148, 271	В	
MetroGel, MetroGel-Vaginal, MetroLotion, Vandazole, metronidazole	4, 40	В	
metronidazole, Flagyl, Flagyl 375, Flagyl ER	11, 40, 94, 122, 148, 317, 353, 382, 411, 439, 529, 531	D/B	
metronidazole, MetroGel, MetroGel-Vaginal, MetroLotion, Vandazole	4, 40	В	
Mevacor, lovastatin	126, 219	X	
Miacalcin Injectable, Miacalcin Nasal Spray, calcitonin-salmon	219–220, 285	С	
Mibelas 24 FE ethinyl estradiol/ norethindrone/ferrous fumarate	480	X	
Micardis, telmisartan	206	D	
Micardis HCT, telmisartan/ hydrochlorothiazide	211-212	D	
miconazole, Micatin, Monistat, Monistat 3, Monistat 7, Monistat Derm, Monistat Dual-Pak	60, 63, 400, 402, 404, 405	В	
miconazole, Oravig	59	С	
Micostatin, nystatin	59, 63, 116, 530	С	
Microgestin, ethinyl estradiol/ norethindrone	480	X	
Microgestin 1/20, Microgestin 1.5/30, ethinyl estradiol/norethindrone acetate	480	X	
Microgestin Fe 1/20, Microgestin Fe 1.5/30, ethinyl estradiol/norethindrone acetate/ ferrous fumarate	480	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Micronase, glyburide	423	В	
Micronor, norethindrone	485	X	
Microzide, hydrochlorothiazide	130, 170, 203, 446	В	
Midamor, amiloride	170, 203	В	
midodrine, ProAmatine	224	С	
Midrin, isometheptene mucate/dichloralphenazone/ acetaminophen	162	С	
miglitol, Glyset	423	В	
Migranal, dihydroergotamine	160	X	
Milk of Magnesia, magnesium hydroxide	88	В	
milnacipran, Savella	139	С	
miltefosine, Impavido	248	D	
Minipress, prazosin	209, 344	С	
Minizide, prazosin/polythiazide	213	С	
Minocin, minocycline	4, 6, 19, 25, 26, 187, 250, 253, 389, 443, 538	D	
minocycline, Dynacin, Minocin	4, 6, 19, 25, 26, 187, 250, 253, 389, 443, 538	D	
minoxidil, Loniten, Rogaine	210	С	
mipomersen, Kynamro	125	В	
mirabegron, Myrbetriq	229	С	
MiraLax, polyethylene glycol	89	С	
Mircette, ethinyl estradiol/ desogestrel diacetate	480	X	
Mirena, levonorgestrel IUD	487	X	
mirtazapine, Remeron, Remeron Soltab	101, 346	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
misoprostol, Cytotec	319, 490	X	
Mobic, meloxicam	130, 157, 264, 284, 358, 265–266, 492	С	
modafinil, Provigil	267, 390	С	
Modicon, ethinyl estradiol/ norethindrone	480	X	
Moduretic, amiloridel hydrochlorothiazide	132, 171, 204	В	
moexipril, Univasc	195	D	
mometasone furoate, Elocon, Asmanex Twisthaler	29, 496, 501	С	
mometasone furoate monohydrate, Nasonex	373	С	
Monistat, Monistat 3, Monistat 7, Monistat Derm, Monistat Dual Pak, miconazole	60, 63, 400, 402, 404, 405	В	
monobenzone, Benoquin	200	С	
Monodox, doxycycline	4, 6, 19, 51, 52, 56, 64, 73, 75, 76, 134, 153, 158, 187, 249, 252, 317, 333, 349, 377, 382, 388, 438, 442, 530, 538	D	
Monopril, fosinopril	168, 205	D	
montelukast, Singulair, Singulair Chewable	27, 372	В	
Monurol, fosfomycin	440, 539	В	
morphine sulfate, Arymo ER, Duramorph, Infumorph, Kadian, MS Contin Roxanol Rescudose	302	С	II
Motrin, ibuprofen	139	B/D	
Motofen, difenoxin/atropine	1017, 119, 240, 437	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Moxatag, amoxicillin	38, 54, 65, 85, 121, 227, 249, 291, 324, 330, 331, 332, 383, 387, 408, 441, 536, 543, 544	В	
moxifloxacin, Avelox, Moxeza, Vigamox	57, 67, 328, 334, 385, 389, 439, 535	С	
Moxeza, moxifloxacin	82	С	
MS Contin, morphine sulfate	302	С	II
MSIR, morphine sulfate	302	С	II
mupirocin, Bactroban, Centany	226, 386, 452	В	
Myambutol, ethambutol	414, 531	В	
Mycelex 7, Mycelex G, Mycelex G Vaginal Tablets, Mycelex Troche, clotrimazole	58, 62, 530	В	
Mycostatin, nystatin	59, 63, 116, 530	С	
Mylanta, Mylanta DS, aluminum hydroxide/magnesium hydroxide/simethicone	144	С	
Mylicon, simethicone	76, 91, 141, 241	С	
Myrbetriq, mirabegron	229	С	
Mysoline, primidone	510	D	
Mytesi, crofelemer	117, 119	С	
MyWay, levonorgestrel	487	X	
nabilone, Cesamet	268	С	
nadolol, Corgard	16, 163, 202	С	
nafcillin	515	В	
nalbuphine, Nubain	308	В	
Nalfon, fenoprofen	491	B/D	
nalidixic acid, NegGram	443	В	
nalmefene, Revex	282	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
naloxone, Narcan, Narcan Nasal Spray	282	В	
naltrexone, ReVia, Vivitrol	278	С	
naphazoline, Vasocon-A	80	С	
Naphcon A, naphazoline/ pheniramine	81	С	
Naprelan, naproxen	139	В	
Naprosyn, naproxen	139, 493, 494	В	
naproxen, Aleve, Anaprox, Anaprox DS, EC-Naprosyn, Naprelan, Naprosyn	139, 493, 494	В	
naratriptan, Amerge	161	С	
Narcan, Narcan Nasal Spray, naloxone	282	В	
Nardil, phenelzine	101, 347	С	
Nasacort, Nasacort AQ, triamcinolone acetonide	374	С	
NasalCrom, cromolyn sodium	374	В	
Nasalide, flunisolide	373	С	
Nasarel, flunisolide	373	С	
Nascobal Gel, Nascobal Nasal Spray cyanocobalamin, vitamin b-12	14	С	
Nasonex, mometasone furoate monohydrate	373	С	
Natachew, Natafort, prenatal vitamins	521	A	
Natacyn, natamycin	86	С	
natalizumab, Tysabri	94, 261	С	
natamycin, Natacyn	86	С	
Natazia, estradiol valerate/ dienogest	481	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
nateglinide, Starlix	424	С	
nebivolol, Bystolic	202	С	
Necon 0.5/35–21, Necon 0.5/35-28, Necon 1/35-21, Necon 1/35-28, Necon 10/11-21, Necon 10/11-28, ethinyl estradiol/ norethindrone	481	Х	
Necon 1/50-21, Necon 1/50-28, mestranol/norethindrone	481	X	
nedocromil, Alocril, Tilade	29, 80	В	
NegGram, nalidixic acid	443	В	
nelarabine, Arranon	505	D	
nelfinavir, Viracept	194, 514	В	
Nelova 1/50-21, Nelova 1/50-28, ethinyl estradiol/mestranol	481	X	
Nelova 0.5/35-21, Nelova 0.5/35- 28, Nelova 1/35-21, Nelova 1/35- 28, Nelova 10/11-21, Nelova 10/11-28, ethinyl estradiol/ norethindrone	481	X	
Nembutal, pentobarbital	235	D	II
Neoral, cyclosporine	354, 366	С	
Neosporin Ointment, Neosporin Ophthalmic Ointment, neomycin/polymyxin b/bacitracin zinc	53, 83, 386	С	
nepafenac, Nevanac	81, 136, 296	С	
Neptazane, methazolamide	151	С	
Neurontin, gabapentin	114, 140, 338, 510	С	
Nevanac, nepafenac	81, 136, 296	С	
nevirapine, Viramune	193, 514	С	
Neevo, Neevo DHA, prenatal vitamins	521	A	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Nexiclon, Nexiclon XR, clonidine	37, 209, 345	С	
Nexa Plus, Nexa Select, prenatal vitamins	522	A	
Nexium, esomeprazole	147, 318, 455	В	
Nexplanon, etonogestrel	487	X	
niacin, Niaspan, Slo-Niacin	127, 218	С	
Niaspan, niacin	127, 218	С	
nicardipine, Cardene, Cardene SR	15, 207	С	
Nicoderm, Nicoderm CQ, nicotine transdermal system	407	D	
Nicorette Gum, nicotine polacrilex	407	X	
Nicorette Mini Lozenge, nicotine polacrilex	408	X	
nicotine nasal spray, Nicotrol NS	408	D	
nicotine transdermal system, Habitrol, Nicoderm, Nicoderm CQ, Nicotrol, Nicotrol Step- down Patch, ProStep	407	D	
nicotine polacrilex, Nicorette Gum, Nicorette Mini Lozenge	407	X	
Nicotrol, Nicotrol Step-down Patch nicotine transdermal system	407	D	
Nicotrol NS, nicotine nasal spray	408	D	
nifedipine, Adalat, Adalat CC, Afeditab CR, Procardia, Procardia XL	15, 163, 208	С	
nifurtimox	69	NR	
Niravam, alprazolam	21, 313	D	IV
nisoldipine, Sular	208	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
nitazoxanide, Alinia	94-95, 148, 395, 531	В	
Nitro-Bid, nitroglycerin	6	С	
Nitrodisc, nitroglycerin	17	С	
nitrofurantoin, Furadantin, Macrobid, Macrodantin	443, 539, 571	В	
nitroglycerin, Nitro-Bid, Nitrodisc, Nitrolingual, Nitromist, Nitrostat, Transderm-Nitro	16–17	С	
Nitrolingual, nitroglycerin	17	С	
Nitromist, nitroglycerin	17	С	
Nitrostat, nitroglycerin	17	С	
nizatidine, Axid, Axid AR	146, 318	С	
Nizoral, ketoconazole	60, 111, 116, 400–406, 530	С	
Nolvadex, tamoxifen citrate	506	D	
Norco, hydrocodone/ acetaminophen	300	С	II
Nordette-21, Nordette-28, ethinyl estradiol/levonorgestrel	481	X	
NordiFlex, somatropin	159	С	
Norditropin, Norditropin AQ, somatropin	159	С	
Norflex, orphenadrine	262	С	
norfloxacin, Noroxin	154, 350, 351, 440, 444, 534	С	
Norgesic, orphenadrine/aspirin	263	D	
Norgesic Forte, orphenadrine/ aspirin/caffeine	263	D	
Norinyl 1+35-21, Norinyl 1+35-28, ethinyl estradiol/norethindrone	481	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Norinyl 1+50-21, Norinyl 1+50- 28, mestranol/norethindrone	481	X	
Normiflo, ardeparin	496	С	
Normodyne, labetalol	203	С	
Noroxin, norfloxacin	154, 350, 351, 440, 444, 534	С	
Norpace, Norpace CR, disopyramide	503	С	
Norplant, levonorgestrel	503	X	
Norpramin, desipramine	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 338, 341, 346, 413	С	
Nor-QD, norethindrone	485	X	
Northera, droxidopa	225	С	
Nortrel 0.5/35, Nortrel 1/35, ethinyl estradiol, norethindrone	481, 482	X	
nortriptyline, Pamelor	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 339, 342, 346, 349, 413	D	
Norvasc, amlodipine	14, 207	С	
Norvir, ritonavir	195, 513	В	
Novolin 70/30, insulin isophane suspension/insulin regular	421	В	
Novolin L, insulin zinc suspension (lente)	420	В	
Novolin N, insulin isophane suspension (lente)	420	В	
Novolin R, insulin regular	418	В	
NovoLog, insulin aspart	418	С	
Noxafil, posaconazole	26, 60, 61, 63	С	
Nubain, nalbuphine	308	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Nucala, mepolizumab	34	NE	
Nucynta, Nucynta ER, tapentadol	322	С	II
NuLev, hyoscyamine	90, 91, 230, 236, 241, 444	С	
Numorphan, oxymorphone	304	С	II
Nupercainal, dibucaine	174	С	
Nutropin, Nutropin AQ, somatropin	159	С	
Nuvigil, armodafinil	266, 390	С	IV
nystatin, Micostatin, Mycostatin, Nystop	59, 63, 116, 530	С	
Nystop, nystatin	63	С	
oatmeal colloid, Aveeno	104–106, 108	A	
Oberdon, hydrocodone/ guaifenesin	526	С	II
Ocella, ethinyl estradiol/ drospirenone	482	X	
Ocuflox, ofloxacin	82	С	
Ocupress, carteolol	150	С	
Odefsey, emtricitabine/rilivirine/ tenofovir alafenamide	197, 513	NE	
Ofirmev, acetaminophen	137	В	
ofloxacin, Floxin, Floxin Otic Solution, Ocuflox	57, 73, 135, 289, 293, 334, 350, 351, 383, 389, 433, 439, 440, 444, 453, 534	С	
olanzapine, Zyprexa, Zyprexa Zudis	343, 508	С	
Oleptro, trazodone	346	С	
olmesartan medoxomil, Benicar	206	D	
olopatadine, Pataday, Patanase, Patanol, Pazeo	80	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
olsalazine, Dipentum	93, 436	С	
Olux, clobetasol propionate foam	497	С	
omalizumab, Xolair	27	В	
Omeclamox-Pak, omeprazole/ clarithromycin/amoxicillin	173	С	
omega 3-acid ethyl esters, Lovaza, Epanova, Vascepa	124, 217	С	
omeprazole, Prilosec	147, 319, 455	В	
Omnaris, ciclesonide	28, 373	С	
Omnicef, cefdinir	55, 292, 325, 332, 333, 384, 387, 409, 452, 534, 551	В	
Omnipen, ampicillin	38, 55, 291, 442, 536, 547	В	
Omontys, peginesatide	13	С	
ondansetron, Zofran, Zofran ODT, Zuplenz	271, 347	В	
Onfi, clobazam	509	С	IV
Onglyza, saxagliptin	431	В	
Onsolis, fentanyl buccal soluble film	306	С	II
Onzetra Xsail, sumatriptan	161	С	
Opana, Opana ER, oxymorphone	304	С	II
Ophthaine, proparacaine	144, 489	NE	
OptiPranolol, metipranolol	150	С	
Optivar, azelastine	80	С	
Oracea, doxycycline	4, 6, 19, 51, 52, 56, 64, 73, 75, 76, 134, 153, 158, 187, 249, 252, 317, 333, 349, 377, 382, 388, 438, 442, 530, 538	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Oralair, sweet vernal/orchard/ perennial rye/timothy/kentucky blue grass mixed pollen allergen extract	371	С	
Oralone, triamcinolone acetonide	25	С	
Oramorph SR, morphine sulfate	302	С	II
Orapred, Orapred ODT, prednisolone sodium phosphate	498–499	С	
Oravig, miconazole	59	С	
Orazyme Dry Mouth Rinse, xylitol/salzyme/selectobac	386	NE	
Orencia, abatacept	369	С	
Orenitram, treprostinil	362	В	
Orkambi, lumacaftor/ivaftor	95	В	
orlistat, Alli, Xenical	272	В	
orphenadrine, Norflex	262	С	
Ortho-Cept-21, Ortho-Cept-28, ethinyl estradiol/desogestrel	482	X	
Ortho-Cyclen-21, Ortho- Cyclen-28, ethinyl estradiol/ norgestimate	482	X	
Ortho Evra, norelgestromin/ ethinyl estradiol	486	X	
Ortho-Novum 1/35-21, Ortho-Novum 1/35-28, Ortho-Novum 777-21, Ortho-Novum 777-28, Ortho-Novum 10/11-21, Ortho-Novum 10/11-28, ethinyl estradiollnorethindrone	482	Х	
Ortho-Novum 1/50-21, Ortho- Novum 1/50-28 mestranol/ norethindrone	482	X	
Ortho Tri-Cyclen-21, Ortho Tri-Cyclen-28, Ortho Tri-Cyclen Lo, ethinyl estradiol/norgestimate	482	X	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
olsalazine, Dipentum	93, 436	С	
Oseltamivir phosphate, Tamiflu	233, 531	С	
Oseni, alogliptin/pioglitazone	425	С	
Otezla, apremilast	358	С	
Ovcon 35 Chewable, Ovcon 35- 21, Ovcon 35-28, Ovcon 50-21, Ovcon 50-28, ethinyl estradiol/ norethindrone	482	X	
Ovral-21, Ovral-28, ethinyl estradiol/norgestrel	482	X	
Ovrette, norgestrel	485	X	
oxaprozin, Daypro	493, 494	С	
oxazepam	9, 21, 314	D	IV
oxcarbazepine, Trileptal, Oxtellar XR	510	С	
Oxaydo, oxycodone	303	В	II
Oxecta, oxycodone	303	В	II
oxiconazole, Oxistat	401, 402, 404, 406	В	
Oxistat, oxiconazole	401, 402, 404, 406	В	
Oxsoralen, Oxsoralen Ultra, methoxsalen	449	С	
Oxtellar XR, oxcarbazepine	510	С	
oxybutynin, Ditropan, Ditropan XL, GelniQUE, Oxytrol	231, 237	В	
oxycodone, Oxaydo, Oxecta, OxyContin, OxyFast, OxyIR, Roxicodone, Xtampza	303	В	II
OxyContin, oxycodone controlled-release	303	В	II
OxyFast, oxycodone immediate- release	303	В	II
OxyIR, oxycodone	303	В	II

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
oxymetazoline, Afrin, Visine L-R	77, 78	С	
oxymorphone, Numorphan, Opana, Opana ER	304	С	II
Oxytrol, oxybutynon	231	В	
Palgic, carbinoxamine	526	С	
paliperidone, Invega, Invega Sustenna	508	С	
palivizumab, Synagis	363	NE	
palonosetron, Aloxi	271	В	
Pamelor, nortriptyline	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 339, 342, 346, 349, 413	D	
Pamine, Pamine Forte, methscopolamine	91, 241	С	
Pancreaze, pancrelipase	309	С	
pancrelipase, Cotazym, Cotazym S, Creon, Kuzyme, Pancreaze, Pertyze, Ultrase, Ultrase MT, Viokace, Zenpep	309–310	С	
Pandel, hydrocortisone probutate	496	С	
Panlor DC, Panlor SS, dihydrocodeine/acetaminophen/ caffeine	299	С	III
pantoprazole, Protonix	147, 319, 455	В	
Parafon Forte, chlorzoxazone	262	С	
paricalcitol, Zemplar	199, 221	С	
Parnate, tranylcypromine	101	С	
paromomycin, Humatin	11	С	
paroxetine, Paxil	24, 98, 275, 312, 343, 349	D	
paroxetine mesylate, Paxil CR	24, 98, 275, 312, 343, 349	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
pasireotide, Signifor LAR	8	С	
Pataday, Patanase, olopatadine	80, 373	С	
Patanol, olopatadine	80	С	
patiromer sorbitex calcium, Veltassa	199	В	
Paxil, paroxetine	24, 98, 275, 312, 343, 349	D	
Paxil CR, paroxetine mesylate	24, 98, 275, 312, 343, 349	D	
Pazeo, olopatadine	80	С	
PCE, erythromycin base	6, 53, 57, 64, 67, 70, 73, 75, 76, 86, 97, 121, 135, 158, 187, 228, 249, 252, 277, 315, 323, 326, 329, 336, 381, 389, 410, 438, 453, 535, 563, 564	В	
PediaCare Fever Drops, ibuprofen	138	B/D	
Pediapred, prednisolone sodium phosphate	499	С	
PediaProfen, ibuprofen	139	B/D	
Pediazole, erythromycin ethylsuccinate/sulfisoxazole	293, 538, 565	С	
PediOtic, neomycin/polymyxin b/ hydrocortisone	294	С	
Pegasys, peginterferon alpha-2a	178	С	
peginesatide, Omontys	13	С	
peginterferon alpha-2a, Pegasys	178	С	
peginterferon alfa-2b, Peg-Intron	178	С	
Peg-Intron, peginterferon alfa-2b	178	С	
pegloticase, Krystexxa	154	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
pegvisomant, Somavert	8	В	
pemirolast, Alamast	80	С	
pemoline, Cylert	37, 267	В	
penbutolol, Levatol	202	С	
penciclovir, Denavir	185	В	
penicillamine, Cuprimine, Depen	367, 446	D	
penicillin g benzathine, Bicillin, Bicillin L-A, Permapen	228, 326, 395, 537	В	
penicillin v potassium, Pen-Vee K	537, 572	В	
Penlac Nail Laquer, ciclopirox topical solution	277	NE	
Pennsaid, diclofenac sodium	264, 265, 283, 297, 357, 358, 365, 491	С	
pentazocine, Talwin	304	С	IV
pentobarbital, Nembutal	235	D	II
pentosan polysulfate sodium, Elmiron	237	В	
pentoxifylline, Trental	519	С	
Pen-Vee K, penicillin v potassium	537, 572	В	
Pepcid, Pepcid AC, Pepcid RPD, famotidine	146, 318	В	
Pepcid Complete, famotidine/ CaCO2/Mg hydroxide	146, 318	С	
Pepto-Bismol, bismuth subsalicylate	117	C/D	
perampanel, Fycompa	510	С	
Percocet, oxycodone/ acetaminophen	303	С	II
Percodan, Percodan-Demi, oxycodone/oxycodone/ terephthalate/aspirin	303	D	II

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Peri-Colace, docusate/ casanthranol	89	С	
Peridex, chlorhexidine gluconate	148	В	
perindopril, Aceon	205	D	
PerioGard, chlorhexidine gluconate	148	В	
<b>Permapen,</b> penicillin g benzathine	537	В	
permethrin, Elimite	380	В	
Persantine, dipyridamole	519	В	
Pertyze, pancrelipase	310	С	
Phazyme, simethicone	141	С	
phenazopyridine, AZO Standard, AZO Standard Maximum Strength, Pyridiate, Pyridium, Uristat, Urogesic	236, 237, 362, 439, 445	В	
phendimetrazine, Bontril	273	С	III
phenelzine, Nardil	101, 347	С	
phentermine, Adipex-P, Fastin, Ionamin, Suprenza ODT	273	С	IV
Phenytek, phenytoin	510	D	
phenytoin, Dilantin, Phenytek	392, 412, 510	D	
PhisoHex, hexachlorophene	386	С	
PhosLo, calcium acetate	200	С	
Phospholine Iodide, echothiophate	150	С	
phosphorated carbohydrated solution, Emetrol	268	NE	
Phrenilin, Phrenilin Forte, butalbital/acetaminophen	167, 298	С	II
phytonadione, vitamin k, AquaMEPHYTON, Mephyton	515	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Picato, ingenol mebutate	9	С	
Pilocar, pilocarpine	149	С	
pilocarpine, Isopto Carpine, Pilocar, Pilopine HS	149	С	
Pilopine HS, pilocarpine	149	С	
pimecrolimus, Elidel	105, 339, 352	С	
pindolol, Visken	202	В	
Pin-X, pyrantel pamoate	188, 327, 378, 399, 411, 451, 529	С	
pioglitazone, Actos	425	С	
piperacillin	537	В	
pirbuterol, Maxair, Maxair Autohaler	31	С	
piroxicam, Feldene	493, 494	С	
pitavastatin, Livalo	126	X	
Plan-B One Step, levonorgestrel	488	X	
Plaquenil, hydroxychloroquine	254, 366, 531	С	
Plavix, clopidogrel	519	В	
Plendil, felodipine	207	С	
Pliaglis Cream, lidocaine/ tetracaine	489	В	
podofilox, Condylox	450	С	
polyethylene glycol, GlycoLax, MiraLax	88	С	
Poly-Pred Ophthalmic, prednisolone acetate/neomycin sulfate/polymyxin b sulfate	84	С	
Polysporin Ointment, Polysporin Ophthalmic Ointment, polymyxin b/ bacitracin zinc	53, 83, 393	С	
polythiazide, Renese, Renese K	130, 170, 203	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Polytrim, trimethoprim/polymyxin b	83	С	
Ponstel, mefenamic acid	130, 492	С	
Portia, ethinyl estradiol/ levonorgestrel	483	X	
posaconazole, Noxafil	26, 60, 61, 63	С	
potassium chloride, K-Dur, Klotrix, K-Tab, Micro-K, Micro-K Extencaps	222–223	С	
potassium citrate, Urocit-K	448	С	
Potiga, ezogabine	509	С	
Pradaxa, dabigatran etexilate mesylate	518	С	
pramlintide, Symlin, Symlin pen	418	С	
PramOtic, chloroxylenol/ pramoxine	288	С	
PrandiMet, repaglinide/ metformin	432	С	
Prandin, meglitinide	424	С	
prasugrel, Effient	517, 519	В	
Pravachol, pravastatin	126, 219	X	
pravastatin, Pravachol	126, 219	X	
Praxbind, idarucizumab	518	NE	
prazosin, Minipress	209, 344	С	
Precose, acarbose	423	В	
Pred Forte, prednisolone acetate	79	С	
Pred-G, prednisolone/gentamycin	84	С	
Pred Mild, prednisolone acetate	79	С	
prednicarbate, Dermatop	496	С	
prednisolone, Prelone, Pred Forte	79, 498	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
prednisolone sodium acetate, Pred Forte, Pred Mild	79	С	
prednisolone sodium phosphate, Orapred, Orapred ODT, Pediapred	498–499	С	
prednisone, Deltasone	41, 499	С	
pregabalin, Lyrica	114, 140, 320, 339, 510	С	V
Pregnyl, chorionic gonadotropin	11	X	
Prelone, prednisolone	499	С	
Premarin, Premarin Vaginal Cream, estrogens (conjugated)	11	X	
prenatal vitamins, Citranatal 90 DHA, Citranatal Assure, Citranatal B-Calm, Citranatal DHA, Citranatal Harmony, Citrana-tal Rx, Duet DHA Balanced, Duet DHA Complete, Natachew, Natafort, Neevo, Neevo DHA, Nexa Plus, Nexa Select, Pre-nate AM, Prenate Chewable, Prenate DHA, Prenate Elite, Prenate Enhance, Prenate Essential, Prenate Restore, Prenate Mini, Prenexa	520–523	A	
Prenate AM, Prenate Chewable, Prenate DHA, Prenate Elite, Prenate Enhance, Prenate Essential, Prenate Restore, Prenate Mini, prenatal vitamins	520-523	A	
Prenexa, prenatal vitamins	523	A	
Preparation H Cream, petrolatum/shark liver oil/ phenylephrine	175	С	
Preparation H Ointment, petrolatum/glycerin/shark liveroil/phenylephrine	175	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Preparation H Suppository, petrolatum/cocoa butter/ phenylephrine	176	С	
Prestalia, perindopril argininel/ amlodipine	214	D	
Prevacid, Prevacid Suspension, Prevacid SoluTab, Prevacid 24 HR, lansoprazole	147, 319, 455	В	
Preven, ethinyl estradiol/ levonorgestrel	487	X	
Previfem, ethinyl estradiol/ norgestimate	483	X	
Prezista, darunavir	194, 513	В	
Prialt, ziconotide	309	С	
Priftin, rifapentine	415, 531	С	
Prilosec, omeprazole	147, 319, 455	С	
Primaxin, imipenem/cilastatin	539	С	
primidone, Mysoline	410	D	
Primsol, trimethoprim	440, 444, 537, 575	С	
Principen, ampicillin	38, 55, 291, 442, 536, 547	В	
Prinivil, lisinopril	168. 205	D	
Prinzide, lisinoprill hydrochlorothiazide	210	D	
Pristiq, desvenlafaxine	24, 99, 312, 345	С	
Proair HFA, albuterol	30	С	
ProAmatine, midodrine	224	С	
<b>Pro-Banthine</b> , propantheline bromide	231, 237	С	
probenecid	154, 155, 316, 317, 395	В	
Probuphine, buprenorphine	279	С	II

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
procainamide, Procanbid, Pronestyl, Pronestyl SR	503	С	
Procanbid, procainamide	503	С	
Procardia, Procardia XL, nifedipine	15, 163, 208	С	
prochlorperazine, Compazine	23, 259, 269, 315, 508	С	
Procrit, epoetin alpha	13	С	
Proctocort, hydrocortisone	174, 435, 495	С	
Proctocream-HC, hydrocortisone/pramoxine	174	С	
Proctofoam-HC, hydrocortisone/ pramoxine	174, 436	С	
Prolex DH, hydrocodone/ potassium guaiacolsulfonate	526	С	II
Prolia, denosumab	288	С	
Prolastin, amlodipine/perindopril	214	D	
Prolixin, fluphenazine	507	С	
Prolixin Decanoate, fluphenazine decanoate	507	С	
Proloprim, trimethoprim	440, 444, 537	С	
promethazine	246, 256, 259, 269, 347, 526	С	
promethazine/codeine	527	С	III
promethazine/codeine/ phenylephrine	527	С	III
Prometrium, progesterone (micronized)	12	X	
propantheline bromide, Pro- Banthine	231, 237	С	
proparacaine, Ophthaine	144, 489	NE	
Propine, dipivefrin	151	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
propranolol, Inderal LA, InnoPran XL	16, 163, 202, 217, 258, 345	С	
propylene glycol, Systane Balance	123	NE	
propylthiouracil, ptu, Propyl- Thyracil	217	D	
<b>Propyl-Thyracil</b> , propylthiouracil, ptu	217	D	
ProQuin XR, ciprofloxacin	18, 19, 52–53, 69, 75, 76, 96, 120, 122, 158, 335, 350, 362, 379, 383, 385, 433, 440, 442, 534	С	
ProSom, estazolam	235	X	IV
ProStep, nicotine transdermal system	407	D	
Protonix, pantoprazole	147, 319, 455	В	
Protopic, tacrolimus	105, 340, 352	С	
protriptyline, Vivactil	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 339, 342, 346, 413	С	
Proventil, Proventil HFA, albuterol	30, 33	С	
Provera, medroxyprogesterone	258, 486, 500	X	
Provigil, modafinil	267, 390	С	
Prozac, Prozac Weekly, fluoxetine	23, 45, 58, 98, 165, 275, 311, 343, 348	С	
Prudoxin, doxepin	105, 235, 339, 352	В	
Psorcon, Psorcon E, diflorasone diacetate	497	С	
psyllium, Metamucil	88	С	
Pulmicort Flexhaler, Pulmicort Respules, budesonide	28, 93, 373, 435, 501	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Pylera, metronidazole/ tetracycline/bismuth subcitrate	173	D	
Pyrazinamide, pyrazinamide	414, 532	С	
pyrazinamide, Pyrazinamide	414, 532	С	
pyrazolopyrimidines, Zaleplon	141, 234	С	
pyrantel pamoate, Pin-X	188, 327, 378, 399, 411, 451, 529	С	
pyrethrins, RID	310	С	
Pyridium, phenazopyridine	236, 237, 362, 439, 445	В	
QNASL, beclomethasone dipropionate	372	С	
Qsymia, phentermine/topiramate	273	X	IV
Qualaquin, quinine sulfate	248, 253	С	
Quartette, ethinyl estradiol/ levonorgestrel	485	X	
Quasense, ethinyl estradiol/ levonorgestrel	483, 485	X	
Qudexy, Qudexy XR, topiramate	511	С	
Questran, Questran Light, cholestyramine	119, 128	С	
quetiapine fumarate, Seroquel, Seroquel XR	45, 49, 344, 508	В	
QuilliChew XR, Quillivant XR, methylphenidate	36	С	II
quinapril, Accupril	169, 206	D	
quinine sulfate, Qualaquin	248, 253	С	
Quixin, levofloxacin ophthalmic solution	82	С	
Qutenza, capsaicin	113, 156, 243, 244, 263–265, 283, 297– 298, 320, 321, 339, 352, 357, 364, 489, 490	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
<b>Qvar,</b> beclomethasone dipropionate	501	С	
rabeprazole, Aciphex, Aciphex Sprinkle	147, 319, 455	В	
racepinephfine, Asthmanefrin	31	С	
Ragwitek, ambrosia artemisiifolia 12 amb a	371	С	
raloxifene, Evista	287	X	
raltegravir, Isentress	190, 195, 512	С	
ramelteon, Rozerem	234	С	
ramipril, Altace	169, 206	D	
Ranexa, ranolazine	17	С	
ranitidine, Zantac, Zantac Chewable Tablets, Zantac Efferdose	146, 318	В	
ranibizumab, Lucentis	115	NE	
ranolazine, Ranexa	17	С	
Rebetol, ribavirin	178	X	
Rebif, Rebif Rebidose, interferon beta-1a	260	С	
Reclast, zoledronic acid	287, 295	D	
Reglan, Reglan ODT, metoclopramide	148, 271	В	
Regranex Gel, becaplermin	434	С	
Relagard Therapeutic Vaginal Gel, acetic acid/oxyquinolone	39, 61	С	
Relpax, eletriptan	160	С	
Relenza, zanamivir for inhalation	233, 531	В	
Remeron, Remeron Soltab, mirtazapine	101, 346	С	
Remicade, infliximab	92, 94, 356, 359, 368, 437	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Renagel, Renvela, sevelamer	200	С	
Renese, Renese K polythiazide	130, 170, 203	D	
Renova, tretinoin	7, 143, 200	С	
Reprexain, hydrocodone/ibuprofen	301	D	II
Rescriptor, delavirdine mesylate	192, 513	С	
Rescula, unoprostone isopropyl	151	С	
Restasis, cyclosporine	354, 366	С	
Restoril, temazepam	235	X	IV
Retin-A, tretinoin	7, 143, 200	С	
Retin-A Migro Gel, tretinoin	7, 143, 200	С	
Retrovir, zidovudine, azt	192, 513	С	
Revatio, sildenafil	361	В	
Revex, nalmefene	282	В	
ReVia, naltrexone	282	С	
Rexulti, brexpiprazole	102, 507	С	
Reyataz, atazanavir	193, 513	В	
Rheumatrex, methotrexate	243, 245, 337, 367	X	
Rhinocort, Rhinocort Aqua, budesonide	373	В	
ribavirin, Copegus, Rebetol, Ribasphere RibaPak, Virazole	178	X	
Ribasphere RibaPak, ribavirin	179	X	
RID, pyrethrins	316	С	
Ridaura, auranofin	366	С	
Rifadin, rifampin	414, 532	С	
Rifamate, rifampin/isoniazid	414, 532	С	
rifampin, Rifadin	414, 532	С	
rifapentine, Priftin	414, 532	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Rifater, rifampin/isoniazid/ pyrazinamide	414, 532	С	
rifaximin, Xifaxan	120, 539	С	
rilpivirine, Edurant	193, 512	В	
rimantadine, Flumadine	531, 573	С	
rxolone, Vexol	79	С	
riociguat, Adempas	360, 361	X	
Riomet, metformin	424	В	
risedronate (as sodium), Actonel, Alteva	287–288, 295	С	
Risperdal Consta, Risperdal M-Tab, risperidone	45, 49–50, 344, 508	С	
risperidone, Risperdal Consta, Risperdal M-Tab	45, 49–50, 344, 50	С	
Ritalin, Ritalin SR, methylphenidate	36, 267	С	II
ritonavir, Norvir	195, 513	В	
rivaroxaban, Xarelto	517	С	
rizatriptan, Maxalt, Maxalt-MLT	161	С	
Robaxin, methocarbamol	262	С	
Robinul, glycopyrrolate	319	В	
Robitussin AC, codeine/ guaifenesin	527	С	III
Rocaltrol, calcitriol	220-221, 223, 285	С	
Rocephin, ceftriaxone	38–39, 56, 66, 69, 86, 134, 153, 255, 278, 292, 317, 324, 331, 332, 333, 349, 362, 382, 388, 433, 534	В	
rolapitant, Varubi	271	NE	
Rondec Syrup, phenylephrine/ chlorpheniramine	527	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
rosiglitazone, Avandaryl, Avandia	427	С	
rosuvastatin, Crestor	126, 219	X	
Rowasa, mesalamine	92, 436	В	
Roxanol, Roxanol Rescudose, morphine sulfate	302	С	II
Roxicet, oxycodone/ acetaminophen	304	С	II
Roxicodone, oxycodone	303	В	II
Rozerem, ramelteon	234	С	
rufinamide, Banzel	510	С	
Rybix ODT, tramadol	112, 167, 181, 185, 305, 321, 340	С	IV
Rynatan, chlorpheniramine/ phenylephrine	527	С	
Ryneze, chlorpheniramine/ scopolamine methyl nitrate	527	С	
Ryzolt, tramadol	112, 167, 181, 185, 305, 321, 340	С	IV
Sabril, vigabatrin	511	С	
sacubitril/valsartan, Entresto	169	D	
Safyral, ethinyl estradiol/ drospirenone/levomefolate	483	X	
Saizen, somatropin	160	С	
salicylic acid, DuoFilm, Keralyt Gel	449	NE	
salmeterol, Serevent, Serevent Diskus	32	С	
Saluron, hydroflumethiazide	130	В	
Salutensin, reserpine/ hydroflumethiazide	216	С	
Sumavel DosePro, sumatriptan	161	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Sanctura, Sanctura XR, trospium chloride	231	С	
Sancuso, granisetron	270	В	
Sansert, methysergide	165	С	
Saphris, asenapine	44, 48, 507	С	
saquinavir, Fortovase	195, 512	В	
saquinavir mesylate, Invirase	195, 512	В	
Sarafem, fluoxetine	348	С	
Savaysa, edoxaban	516	С	
Savella, milnacipran	139	С	
saxagliptin, Onglyza	430	В	
Scopace, scopolamine	259, 268	С	
scopolamine, Scopace, Transderm-Scop	247, 256, 259, 268	С	
Scytera, coal tar	110, 327, 355	С	
Seasonale, ethinyl estradiol/ levonorgestrel	485	X	
Seasonique, ethinyl estradiol/ levonorgestrel	485	X	
Sectral, acebutolol	201, 503	В	
selegiline, Emsam, Zelapar	101, 347	С	
selenium sulfide, Selsun, Selsun Blue, Selsun Gold	111, 406	С	
Selsun, Selsun Blue, Selsun Gold, selenium sulfide	111, 406	С	
Selzentry, maraviroc	196, 513	В	
Semprex, acrivastine/ pseudoephedrine	527	С	
Septra, Septra DS, sulfamethoxazole/trimethoprim	53, 57, 65, 120, 122, 158, 290, 293, 323, 329, 335, 350, 351, 363, 379, 383, 385, 434, 441, 444, 537, 576	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Serevent Diskus, salmeterol	32	С	
Seroquel, Seroquel XR, quetiapine fumarate	45, 49, 344, 508	В	
Serostim, somatropin	160	С	
sertaconazole, Ertaczo	404	С	
sertraline, Zoloft	24, 98, 275, 312, 343, 349	С	
sevelamer, Renagel, Renvela	200	С	
Signifor LAR, pasireotide	8	С	
sildenafil, Revatio, Viagra	361	В	
Silenor, doxepin	235	С	
Silvadene, silver sulfadiazine	58, 185, 186, 393	В	
silver sulfadiazine, Silvadene	58, 185, 186, 393	В	
Simbrinza, brimonidine/ brimzolamide	149	С	
Simcor, simvastatin/niacin erhex	129	X	
Simponi, golimumab	356, 359, 367	В	
simvastatin, Zocor	126, 219	X	
sinecatechins, Veregen	450	С	
Singulair, Singulair Chewable, montelukast	27, 372	В	
Sirturo, bedaquiline	414	В	
sitagliptin, Januvia	430	В	
Sivextro, tedizolid	67, 334	С	
Skelaxin, metaxalone	262	В	
Sklice, ivermectin	316	С	
Skyla, levonorgestrel IUD	487	X	
Slo-Niacin, niacin	128, 218	С	
sodium hyaluronate, <b>Hyal</b> , <b>Hyalgan</b>	284, 370	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
sodium oxybate, <b>Xyrem</b>	268	В	
sodium polystyrene sulfonate, Kayexalate	199	С	
sofosbuvir, Sovaldi	179	В	
Solaquin, Solaquin Forte, Solaquin Forte Gel, hydroquinone	201	С	
Solaraze, diclofenac	8, 264, 265, 283, 297, 357, 358, 365, 491	С	
Solesta, dextranomer microsperes/sodium hyaluronate	229	NE	
solifenacin, VESIcare	231	С	
Solu-Cortef, hydrocortisone sodium succinate	500	С	
<b>Solu-Medrol,</b> <i>methylprednisolone sodium succinate</i>	500	С	
Soma, carisoprodol	262	С	
Soma Compound, carisoprodol/aspirin	263	D	
Soma Compound with Codeine, carisoprodol/aspirin/codeine	263	D	III
somatropin, Genotropin, Genotropin Miniquick, Humatrope, Norditropin, Nutropin, Nutropin AQ, Omnitrope Pen 5, Omnitrope Pen 10, Saizen, Serostim	159–160	С	
Somavert, pegvisomant	8	В	
Sonata, zaleplon	141, 234	С	IV
Soolantra, ivermectin	3	С	
Soriatane, acitretin	354	X	
sotalol, Betapace, Betapace-AF	502	С	
Sovaldi, sofosbuvir	179	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Spectracef, cefditoren pivoxil	55, 325, 387, 409, 534	С	
Spiriva, tiotropium (as bromide monohydrate)	31	С	
spironolactone, Aldactone	131, 170, 203, 348	D	
Sporanox, itraconazole	276, 530, 569	С	
Sprintec 28, ethinyl estradiol/ norgestimate	483	X	
Sprix, ketorolac tromethamine	492	С	
Stadol, Stadol Nasal Spray, butorphanol tartrate	167, 308	С	IV
Starlix, nateglinide	424	С	
stavudine, Zerit	192, 514	С	
Stelara, ustekinumab	355, 358	В	
Stelazine, trifluoperazine	23, 315, 508	С	
Stendra, avanafil	361	В	
Stiolto Respimat, tiotropium/ olodaterol	31	С	
Strensiq, asfotase alfa	224	NE	
streptomycin	328, 414, 532	D	
Striant, testosterone	397	X	III
Stribild, elvitegravir/cobicistat/ emtricitabine/tenofovir disoproxil fumarate	197, 513	В	
Stromectol, ivermectin	399, 529	С	
Subsys, fentanyl citrate	307	С	II
Suboxone, buprenorphine/naloxone	280	С	III
Subutex, buprenorphine	279, 306	С	III
succimer, Chemet	239, 248	С	
sucralfate, Carafate	319	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Sular, nisoldipine	208	С	
sulconazole, Exelderm, Extina	401, 402, 404, 406	С	
sulfacetamide, Bleph-10, Cetamide, Isopto Cetamide, Klaron	4, 5, 53, 82, 393	С	
sulfasalazine, Azulfidine, Azulfidine EN-Tabs	93, 367, 436	B/D	
sulfinpyrazone, Anturane	155	С	
sulfisoxazole, Gantrisin	441, 537	B/D	
sulindac, Clinoril	493	C/D	
sumatriptan, Alsuma Injectable, Imitrex, Imitrex Injectable, Imitrex Nasal Spray, Onzetra Xsail, Sumavel DosePro, Zecuity Transdermal, Zembrace SymTouch	161	С	
Sumycin, tetracycline	6, 26, 54, 57, 187, 250, 253, 328, 336, 353, 377, 383, 390, 538, 574	D	
Suprax Oral Suspension, cefixime	56, 292, 325, 382, 384, 409, 433, 442, 534, 552	В	
Suprenza ODT, phentermine	273	С	IV
Surfak, docusate calcium	88	С	
Surmontil, trimipramine	22, 100, 115, 133, 164, 166, 238, 242, 276, 313, 339, 342, 346, 413	С	
Sustiva, efavirenz	192, 513	С	
Syeda, ethinyl estradiol/ drospirenone	483	X	
Symbicort, budesonide/ formoterol	32	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Symbyax, olanzapine/ fluoxetine	46, 99	С	
Symlin, Symlin Pen, pramlintide	418	С	
Symmetrel, amantadine	531, 542	С	
Synagis, palivizumab	363	NE	
Synalar, fluocinolone acetonide	495	С	
Synalgos-DC, dihydrocodeine	299	D	III
Synera, lidocaine/tetracaine	489	В	
Synthroid, levothyroxine	225	A	
Syncisc One, hylan a and hylan b	284	В	
Synjardy, Synjardy XR, empagliflozin/metformin	429	С	
Systane, Systane Ultra, polyethylene glycol/propylene glycol	123	NE	
Systane Balance, propylene glycol	123	NE	
Taclonex Ointment, Taclonex Scalp Topical Suspension, calcipotriene/betamethasone dipropionate	354	С	
tacrolimus, Protopic	105, 340, 352	С	
tadalafil, Adcirca, Cialis	16, 361	В	
tafluprost, Zioptan	151	С	
Tagamet, Tagamet HB, cimetidine	146, 317	В	
Talwin, pentazocine	304	С	IV
Talwin-NX, pentazocine/ naloxone	304, 308	С	
Tamiflu, oseltamivir	233, 531	С	
tamoxifen citrate, Nolvadex	506	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
tamsulosin, Flomax	446	В	
Tanafed DMX, dexchlorpheniramine/ pseudoephedrine/ dextromethorphan	527	С	
tapentadol, Nucynta, Nucynta ER	322	С	II
Tanzeum, albiglutide	427	С	
Tapazole, methimazole	216	D	
Tarceva, erlotinib	506	D	
Tarina, ethinyl estradiol/ norethindrone	483	X	
Tarka, trandolapril/verapamil	214	D	
tavaborole, Kerydin	277	С	
Taytulla, estradiol/norethindrone	483	X	
tazarotene, Avage, Tazorac	6, 143, 200, 355	X	
Tazicef, ceftazidime	513	В	
Tazidime, ceftazidime	513	В	
Tazorac, tazarotene	6, 143, 200, 355	X	
Tecfidera, dimethyl fumarate	259	С	
Teczem, enalapril/diltiazem	214	D	
tedizolid, Sivextro	67, 334	С	
Teflaro, ceftaroline fosamil	66, 228, 333	В	
Tegretol, Tegretol XR, carbamazepine	42, 43, 47, 412, 509	D	
Tekamlo, aliskiren/amlodipine	214-215	D	
Tekturna, aliskiren	210	D	
Tekturna HCT, aliskiren/ hydrochlorothiazide	214	D	
telavancin, Vibativ	539	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
telbivudine, Tyzeka	177	С	
telithromycin, Ketek	57, 334, 534	С	
telmisartan, Micardis	206	D	
telotristat ethyl, Xermelo	63, 118		
temazepam, Restoril	235	X	IV
Temovate, clobetasol propionate	497	С	
Tenex, guanfacine	209	В	
tenofovir alafenamide (AF), Vemlidy	177	В	
tenofovir disoproxil fumarate, Viread	192, 514	В	
Tenoretic, atenolol/ chlorthalidone	212	D	
Tenormin, atenolol	16, 162, 201, 504	D	
Terazol, Terazol 3, Terazol 7, terconazole	63	С	
terazosin, Hytrin	209	С	
terbinafine, Lamisil, Lamisil AT	277, 401, 402, 404, 406, 530	В	
terbutaline	31	В	
terconazole, Terazol, Terazol 3, Terazol 7	63	С	
teriflunomide, Aubagio	260	X	
teriparatide, Forteo	224, 287	С	
Tessalon Caps, Tessalon Perles, benzonatate	528	С	
testosterone, Androderm, AndroGel, Axiron, Fortesta, Striant, Testim, Testostoderm, Testostoderm TTS	39–398	X	III
Testred, methyltestosterone	396	X	III

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tetracaine	469	С	
tetracycline, Sumycin	6, 26, 54, 57, 187, 250, 253, 328, 336, 353, 377, 383, 390, 538, 574	D	
tetrahydrozoline, Tyzine, Visine	78, 372	С	
Teveten, eprosartan	206	D	
Teveten HCT, eprosartan/ hydrochlorothiazide	211	D	
T/Gel, coal tar	110, 327, 355	С	
Thalitone, chlorthalidone	130, 203	С	
Theo-24, theophylline	33	С	
Theo-Dur, theophylline	33	С	
Theolair, theophylline	34	С	
theophylline, Theo-24, Theo-Dur, Theolair, Uniphyl	33-34	С	
thioridazine, Mellaril	508	С	
Thorazine, chlorpromazine	49, 186, 269, 507	С	
Thyrolar, liothyronine/ levothyroxine	226	A	
tiagabine, Gabitril	511	С	
Tiazac, diltiazem	15, 207	С	
Ticlid, ticlopidine	519	В	
ticlopidine, Ticlid	519	В	
tigecycline, Tygacil	68, 335, 539	D	
Tilade, nedocromil	29	В	
Tilia FE, ethinyl estradiol/ norethindrone acetate	483	X	
Timolide, timolol/ hydrochlorothiazide	213	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
timolol, Betimol, Blocadren, Istalol, Timoptic, Timoptic XE	150, 163, 202	С	
Timoptic, Timoptic XE, timolol	150	С	
timothy grass pollen allergen extract, Grastek	371	С	
Tinactin, tolnaftate	402, 404	С	
Tindamax, tinidazole	11, 40, 148, 411, 439, 529, 531	С	
tinidazole, Tindamax	11, 40, 148, 411, 439, 529, 531	С	
tioconazole, Vagistat	63	С	
tiotropium (as bromide monohydrate), <b>Spiriva</b>	31	С	
Tivorbex, indomethacin	492	B/D	
tizanidine, Zanaflex	262	С	
TobraDex, TobraDex ST, tobramycin/dexamethasone	85	С	
tobramycin, Nebcin, Tobrex	83	В	
Tobrex, tobramycin	83	В	
tocilizumab, Actemra	244, 245, 369	С	
tofacitinib, Xeljanz, Xeljanz XR	366	С	
Tofranil, Tofranil PM, imipramine	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 338–339, 341–342, 346, 413	С	
tolazamide, Tolinase	423	С	
tolbutamide	423	С	
Tolinase, tolazamide	423	С	
tolnaftate, Aftate, Tinactin	402, 404	С	
tolterodine, Detrol, Detrol LA	230, 237	С	
Topamax, topiramate	47, 162, 511	D	

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Topicort, desoximetasone	495, 497	С	
topiramate, Topamax, Trokendi XR, Qudexy, Qudexy XR	47, 162, 510	D	
Toprol-XL, metoprolol succinate	16, 163, 169, 202	С	
Toradol, ketorolac	492	С	
torsemide, Demadex	131, 171, 204	В	
Toujeo, insulin glargine (recombinant)	419–420	С	
Toviaz, fesoterodine fumarate	230	С	
tramadol, Rybix ODT, Ryzolt, Ultram, Ultram ER	112, 167, 181, 185, 305, 321, 340	С	IV
tipranavir, Aptivus	195, 511	С	
Tradjenta, linagliptin	430	В	
Trandate, labetalol	203	С	
trandolapril, Mavik	169, 206	D	
tranexamic acid, Lysteda	257	В	
Transderm-Nitro, nitroglycerin	17	С	
Transderm-Scop, scopolamine	247, 256, 259, 268	С	
Tranxene, clorazepate	9, 21–22, 314	С	IV
tranylcypromine, Parnate	101	С	
Travatan, Travatan Z, travoprost	151	С	
travoprost, Travatan, Travatan Z	151	С	
trazodone, Oleptro	346	С	
Trental, pentoxifylline	519	С	
treprostinil, Orenitram	362	В	
Tresiba, insulin degludec (insulin analog)	420	С	
tretinoin, Atralin, Avita, Renova, Retin-A, Retin-A Micro Gel, Tretin-X	6–7, 143, 200	С	

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Tretin-X, tretinoin	6	С	
Trexall, methotrexate	243, 245, 337, 367	X	
Treximet, sumatriptan/naproxen sodium	161	C/D	
triamcinolone, Aristocort, Kenalog-E	25, 499, 500	С	
triamcinolone acetonide, Azmacort, Kenacort, Kenalog Injectable, Kenalog Lotion, Kenalog Ointment, Kenalog Spray, Nasacort, Nasacort AQ, Oralone, Triact	25, 374, 495–497	С	
triamcinolone diacetate, Aristocort Forte	499, 500	С	
triamterene, Dyrenium	131, 203	С	
triazolam, Halcion	20, 140, 235	X	IV
Tribenzor, olmesartan medoxomil/amlodipine/ hydrochlorothiazide	216	D	
TriCor, fenofibrate	127, 218	С	
Tridesilon, desonide	495	С	
triethanolamine, Cerumenex	68	С	
trifluoperazine, Stelazine	23, 315, 508	С	
trifluridine, Viroptic	87, 246	С	
Trileptal, oxcarbazepine	510	С	
Tri-Levlen-21, Tri-Levlen-28, ethinyl estradiol/levonorgestrel	483	X	
TriLipix, fenofibrate	127, 218	С	
Tri-Luma, hydroquinone/ fluocinolone/tretinoin	201, 255	С	
trimethoprim, Primsol, Proloprim	440, 444, 537, 575	С	

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trimipramine, Surmontil	22, 100, 115, 133, 164, 166, 238, 242, 276, 313, 339, 342, 346, 413	С	
Trimox, amoxicillin	38, 54, 65, 85, 121, 227, 249, 291, 324, 330, 331, 332, 383, 387, 408, 441, 536, 543, 544	В	
TriNessa, ethinyl estradiol/ norgestimate	484	X	
Tri-Norinyl-21, Tri-Norinyl-28, ethinyl estradiol/norethindrone	484	X	
Triphasil-21, Triphasil-28, ethinyl estradiol/levonorgestrel	484	X	
Tri-Previfem, ethinyl estradiol/ norgestimate	484	X	
Tri-Sprintec 28, ethinyl estradiol/norgestimate	484	X	
Trivora-21, Trivora-28, ethinyl estradiol/levonorgestrel	484	X	
Trizivir, abacavir/lamivudine/ zidovudine	197, 513	С	
Trokendi XR, topiramate	47, 511	D	
trospium chloride, Sanctura, Sanctura XR	231	С	
Trulicity, dulaglutide	427	С	
Trumenba, meningococcal group b vaccine	256–257	В	
Trusopt, dorzolamide	149	С	
Truvada, tenofovir disoproxil fumarate/emtricitabine	197, 514	В	
Tucks, witch hazel	175	NE	
Turbinaire, dexamethasone	373	С	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Tussi-12 D Tablets, Tussi-12 DS, carbetapentane/ pyrilamine/phenylephrine	528	С	
TussiCaps, Tussionex, hydrocodone/chlorpheniramine	528	С	II
Tussi-Organidin DM NE, dextromethorphan/guaifenesin	528	С	
Tussi-Organidin NE, codeine/ guaifenesin	528	С	V
Twinject, epinephrine	12, 391	С	
Twynsta, telmisartan/amlodipine	215	D	
Tygacil, tigecycline	68, 335, 539	D	
Tylenol, acetaminophen	137	В	
Tylenol#1, #2, #3, #4, acetaminophen/codeine	299	С	III
Tylenol PM, acetaminophen/ diphenhydramine	235	В	
Tylox, oxycodone/acetaminophen	304	С	II
Tysabri, natalizumab	94, 261	С	
Tyzeka, telbivudine	177	С	
Tyzine, tetrahydrozoline	78, 372	С	
Uceris, budesonide	435	С	
U-Cort, hydrocortisone acetate	495	С	
ulipristal, ella	488	X	
Uloric, febuxostat	155	С	
Ultracet, tramadol/ acetaminophen	113, 168, 182, 186, 305, 322, 341	С	IV
Ultram, Ultram ER tramadol	113, 168, 182, 186, 305, 322, 341	С	IV
Ultrase MT, pancrelipase	310	С	
Ultravate, halobetasol propionate	498	С	

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Unasyn, ampicillin/sulbactam	38, 536	В	
undecylenic acid, Desenex	403	NE	
Uniphyl, theophylline	34	С	
Uniretic, moexipril/ hydrochlorothiazide	211	D	
Unithroid, levothyroxine	226	A	
Univasc, moexipril	205	D	
unoprostone isopropyl, Rescula	151	С	
Uptravi, selexipag	360	NE	
urea cream, Carmol 40, Keratol 40	386	С	
Urecholine, bethanechol	231, 439	С	
Urelle, methenamine/phenyl salicylate/methylene blue/ sodiumbiphosphate/hyoscyamine	445	С	
Urised, methenamikne/ sodium phosphate monobasic/ phenylephrine salicylate/ methyleneblue/hyoscyamine sulfate	237, 445	С	
Urispas, flavoxate	230	В	
Uristat, phenazopyridine	236, 237, 362, 439, 445	В	
Urocit-K, potassium citrate	448	С	
Urogesic, phenazopyridine	236, 237, 362, 439, 445	В	
UroXetral, alfuzosin	447	В	
ursodiol, Actigall	41, 73	В	
ustekinumab, Stelara	355, 358	В	
Vagistat, tioconazole	63	С	
valacyclovir, Valtrex	184, 185, 531	В	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
valbenazine, Ingrezza	43, 48, 396, 507	NE	
Valcyte, valgancidovir	364, 514	С	
valgancidovir, Valcyte	364, 514	С	
Valium, diazepam	9, 22, 255, 262, 315, 392, 509	D	IV
valproic acid, Depakene	412	D	
valsartan, Diovan	169, 206	D	
Valtrex, valacyclovir	184, 185, 531	В	
Valturna, aliskiren/valsartan	214	D	
Vancocin, Vancocin Oral Solution, Vancocin Pulvules, vancomycin	539, 577-579	С	
vancomycin, Vancocin, Vancocin Oral Solution, Vancocin Pulvules	539, 577–578	С	
Vandazole, metronidazole	3, 40	В	
Vaniqa, eflornithine	136	С	
Vanos, fluocinonide	498	С	
Vantin, cefpodoxime proxetil	56, 66, 154, 228, 292, 325, 332, 333, 384, 387, 409, 442, 453, 533, 553	В	
Vantrela ER, hydrocodone bitartrate	300	С	
vardenafil, Levitra, Staxyn	16, 361	В	
varenicline, Chantix	406	С	
Varubi, rolapitant	271	NE	
Vascepa, icosapent ethyl (omega-3 fatty acid)	217	NE	
Vaseretic, enalapril/ hydrochlorothiazide	210	D	

Drug	Page Numbers	FDA Pregnancy Category	DEA Schedule
Vasocidin Ophthalmic Solution, sulfacetamide/prednisolone	84	С	
Vasotec, enalapril	168, 205	D	
Vectical, calcitriol	354	С	
vedolizumab, Entyvio	93, 94, 437	В	
Velcade, bortezomib	506	В	
Velivet, ethinyl estradiol/ desogestrel	484	X	
Veltassa, patiromer sorbitex calcium	199	В	
Vemlidy, tenofovir alafenamide (TAF)	177	В	
venlafaxine, Effexor, Effexor XR	24, 98, 99, 312, 345	С	
Ventolin, albuterol	30, 33	С	
Veramyst, fluticasone furoate	373	С	
verapamil, Calan, Calan SR, Covera-HS, Isoptin, Isoptin SR, Verelan	15, 163, 208, 502	С	
Verdeso, desonid	495	С	
Veregen, echins	450	С	
Verelan, verapamil	208	С	
Vermox, mebendazole	188, 327, 378, 399, 410, 451, 529	С	
Versacloz, clozapine	507	В	
VESIcare, solifenacin	231	С	
Vexol, rimexolone	79	С	
Vfend, voriconazole	26, 59, 530	D	
Viadur, leuprolide	506	X	
Viagra, sildenafil	16	В	
Vibativ, telavancin	539	С	

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Vibramycin, Vibra-Tab, doxycycline	4, 6, 19, 51, 52, 56, 64, 73, 75, 76, 134, 153, 158, 187, 249, 252, 317, 333, 349, 377, 382, 388, 438, 442, 530, 538	D	
Vicodin, Vicodin ES, Vicodin HP, hydrocodonel acetaminophen	300	С	II
Vicoprofen, hydrocodonel ibuprofen	301	D	II
Victoza, liraglutide	428	С	
Victrelis, boceprevir	180	В	
vidarabine, Vira-A	246	С	
Videx, Videx EC, didanosine	191, 514	В	
Viekira XR, Viekira Pak, ombitasvir/paritapevir/ritonavir/ dasabuvir	181	В	
vigabatrin, Sabril	511	С	
Vigamox, moxifloxacin	82	С	
Viibryd, vilazodone	99	С	
vilazodone, Viibryd	99	С	
Vimpat, lacosamide	509	С	V
Viokace, pancrelipase	310	С	
Vira-A, vidarabine	246	С	
Viracept, nelfinavir	194, 514	В	
Viramune, nevirapine	193, 514	С	
Virazole, ribavirin	168	X	
Viread, tenofovir disoproxil fumarate	192, 514	В	
Viroptic, trifluridine	87, 246	С	
Visine, tetrahydrozoline	80	NE	
Visine L-R, oxymetazoline	80	NE	

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Visine AC, tetrahydrozoline/zinc sulfate	81	NE	
Visken, pindolol	202	В	
Vistaril, hydroxyzine	20, 70, 103, 108, 110, 256, 313, 371, 376, 525, 528	С	
Vistide, cidofovir	364, 514	С	
vitamin b-12, cyanocobalamin, Calomist, Nascobal Gel, Nascobal Nasal Spray	14	С	
Vivactil, protriptyline	22, 100, 114, 133, 164, 166, 238, 242, 276, 313, 339, 342, 346, 413	С	
Vivitrol, naltrexone	278	С	
Vivlodex, meloxicam	130, 157, 264, 284, 358, 265–266, 492	С	
Voltaren, Voltaren Ophthalmic Solution, Voltaren-XR, diclofenac sodium	8, 264, 265, 283, 297, 357, 358, 365, 491	С	
voriconazole, Vfend	26, 59, 530	D	
Vospire ER, albuterol	30, 33	С	
Vraylar, cariprazine	44, 49, 507	NE	
Vytorin, ezetimibe/simvastatin	126	X	
Vyvanse, lisdexamfetamine	35, 41	С	II
warfarin, Coumadin	515	D	
WelChol, colesevelam	128, 432	В	
Wellbutrin, Wellbutrin SR, Wellbutrin XL, bupropion hydrochloride	37, 100, 406–407, 507	С	
Westcort, hydrocortisone valerate	496	С	
witch hazel, Tucks	175	NE	

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Xalatan, latanoprost	151	С	
Xanax, Xanax XR, alprazolam	21, 314	D	IV
Xarelto, rivaroxaban	517	С	
Xartemis XR, oxycodone/ acetaminophen	304	С	II
Xeljanz, Xeljanz XR, tofacitinib	366	С	
Xeloda, capecitabine	506	D	
Xenical, orlistat	272	В	
Xermelo, telotristat ethyl	63, 118		
Xgeva, denosumab	275	С	
Xifaxan, rifaximin	120, 539	С	
Xodol, hydrocodone/ acetaminophen	301	С	II
Xolair, omalizumab	27	В	
Xolegel, ketoconazole	111	С	
Xopenex, levalbuterol	30	С	
Xtampza, oxycodone	303	В	II
Xtoro, finafloxacin	289	С	
Xultophy, insulin degludec/ liraglutide	422	С	
Xylocaine Injectable, Xylocaine Viscous Solution, lidocaine	25, 58, 106, 113, 175, 182, 233, 265, 298, 321, 340, 489, 490	В	
Xyrem, sodium oxybate	268	В	
Xyzal Allergy 24HR, levocetirizine	103, 107, 109, 371, 376, 448	В	
Yasmin, ethinyl estradiol/ drospirenone	484	X	
Yaz, ethinyl estradiol/ drospirenone	348, 484	X	
Yodoxin, diiodohydroxyquin, iodoquinol	529	С	

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Yosprala, esomeprazole/aspirin	455	D	
Zaditor, ketotifen	80	С	
zafirlukast, Accolate	27, 372	В	
zaleplon, Sonata	141, 234	С	IV
Zamicet, hydrocodone/ acetaminophen	301	С	II
Zanaflex, tizanidine	262	С	
zanamivir for inhalation, Relenza	233, 531	В	
Zantac, Zantac Chewable Tablets, Zantac Efferdose ranitidine	146, 318	В	
Zarontin, ethosuximide	509	С	
Zaroxolyn, metolazone	132, 204	В	
zdu, zidovudine, Retrovir	192, 513	С	
Zebeta, bisoprolol fumarate	201	С	
Zebutal, butalbital/ acetaminophen/caffeine	167, 298	С	II
Zecuity Transdermal, sumatriptan	161	С	
Zegerid, omeprazole/sodium bicarbonate	147	В	
Zembrace SymTouch, sumatriptan	161	С	
Zemplar, paricalcitol	199, 221	С	
Zenpep, pancrelipase	310	С	
Zentrip, meclizine	246, 256, 259, 269, 448	В	
Zerbaxa, ceftolozane/tazobactam	534	В	
Zerit, stavudine	192, 514	С	
Zestoretic, lisinopril/ hydrochlorothiazide	210	C/D	

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Zestril, lisinopril	168, 205	D	
Zetia, ezetimibe	125	С	
Zetonna, ciclesonide	373	С	
Ziac, bisoprolol/ hydrochlorothiazide	212	С	
Ziagen, abacavir	191, 414	С	
Ziana, tretinoin/clindamycin	7	С	
ziconotide, Prialt	309	С	
zidovudine, zdu, Retrovir	192, 513	С	
zileuton, Zyflo, Zyflo CR	27, 372	С	
Zinacef, cefuroxime	532	В	
Zioptan, tafluprost	151	С	
ziprasidone, Geodon	45, 50, 508	С	
Zipsor, diclofenac potassium	491	C/D	
Zirgan, ganciclovir	246	С	
Zithromax, Zithromax Tri-Pak, Zmax, azithromycin	38, 55, 64, 65, 69, 71, 72, 75, 76, 81, 86, 87, 152, 153, 158, 227, 251, 291, 323–325, 329–331, 333, 335–336, 380, 382, 387, 408, 433, 438, 452, 535, 548	В	
Zocor, simvastatin	126, 219	X	
ZoDerm, benzoyl peroxide	5, 143	С	
Zofran, Zofran ODT, ondansetron	271, 347	В	
Zohydro ER, hydrocodone	300	С	II
Zoladex, goserelin	506	X	
zoledronic acid, Reclast, Zometa	287, 295, 506	D	
Zolicef, cefazolin	532	В	

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zolmitriptan, Zomig, Zomig- ZMT	161	С	
Zoloft, sertraline	24, 98, 275, 312, 343, 349	С	
zolpidem tartrate, Ambien, Ambien CR, Edluar, Zolpimist	141, 234	В	IV
zolpidem tartrate, Intermezzo	141, 234	С	IV
Zolpimist, zolpidem tartrate	141, 234	В	IV
Zometa, zoledronic acid	287, 295, 506	D	
Zomig, Zomig ZMT, zolmitriptan	161	С	
Zonalon, doxepin	105, 235, 339, 352	В	
Zonegran, zonisamide	511	С	
zonisamide, Zonegran	511	С	
Zorvolex, diclofenac	264, 283	С	
Zostrix, Zostrix HP, capsaicin	105, 113, 156, 243, 244, 263–265, 283, 297–298, 320, 321, 339, 352, 357, 364, 489, 490	В	
Zosyn, piperacillin/tazobactam	537	В	
Zovia 1/35–21, Zovia 1/35–28, Zovia 1/50-21, Zovia 1/50-28, ethinyl estradiol/ethynodiol diacetate	484	X	
Zovirax, acyclovir	71, 184, 185, 531, 541	С	
Zuplenz, ondansetron	271, 347	В	
Zurampic, lesinurad	156	NE	
<b>Zyban,</b> bupropion hydrochloride	07	С	
Zyclara, imiquimod	8, 450	С	
<b>Zydone,</b> hydrocodonel acetaminophen	301	С	II

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Zyflo, Zyflo CR, zileuton	27, 372	С	
Zylet, tobramycin/loteprednol	85	С	
Zyloprim, allopurinol	155, 447	С	
<b>Zymar,</b> gatifloxacin	82	С	
Zymaxid, gatifloxacin	82	С	
Zyprexa, Zyprexa Zudis, olanzapine	343, 508	С	
Zyvox, linezolid	67, 334, 389, 539	С	